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September 1991

Women 65 Years or Older: A Comparison of Economic Well-Being by Living Arrangement

By F. N. Schwenk
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Using data from the 1988 Consumer Expenditure Survey, this study reports the living arrangements of women who were 65 years or older: 38 percent lived alone; 36 percent lived with a husband; and 26 percent lived with children, siblings, or others. The economic status of these three types of consumer units was compared using several measures of economic well-being. By most of the measures, women living alone fared least well and husband-wife couples rated best. Families where older women lived with others had higher income but lower per capita income than couples or women living alone.

Older women outnumber older men (65 or more years) by almost a 3-to-2 ratio (4). Consequently, many older women live alone or with children, siblings, or other relatives. This study describes the consumer units¹ in which women 65 years or older reside. Using several measures, the economic well-being of these households is compared to determine if households with a woman living alone, with a husband, or with others fare better.

¹The terms household and family are used in this paper to refer to consumer units that are comprised of either: (1) all members of a particular household who are related by blood, marriage, adoption, or other legal arrangements; (2) a person living alone or sharing a household with others or living as a roomer in a private home or lodging house or in permanent living quarters in a hotel or motel, but who is financially independent; or (3) two or more persons living together who pool their income to make joint expenditure decisions. To be considered financially independent, at least two of the three major expense categories (housing, food, and other living expenses) have to be provided by the respondent.

Sample and Data

The 1988 Consumer Expenditure Survey (CEX) provided the data for this project (6). The CEX, collected by the Bureau of Census for the Bureau of Labor Statistics (BLS), is an ongoing survey of 5,000 consumer units each quarter; four quarters of data were used for this study. The sample was weighted to represent the noninstitutionalized U.S. population. Persons residing in nursing homes² or other institutions were not part of the sample. Only consumer units regarded by BLS as complete reporters of income were included.

Consumer units were selected if a woman 65 years or older resided in the household. In some cases, she was the reference person or wife of the reference person; in others, she lived with a family or another person and was not the household head. There were 3,067 units, representing 14 million³ consumer units, with a woman 65 years or older.

²Six percent of women age 65 or older live in nursing homes, including 1 percent of those 65-74 years, 7 percent of those 75-84 years, and 25 percent of women 85 years or older (5).

³Data from the 1989 Current Population Survey (3) indicate there are almost 17 million women 65 years or older. This study does not include units with incomplete reporting of income or persons residing in nursing homes.

Living Arrangements of Women 65 Years or Older

During the course of her later years, a woman may reside in several living arrangements: with a husband, then alone, and then perhaps with a sibling or child. This study, however, is cross-sectional, reflecting just one point in time. Table 1 describes where older women were living in 1988, that is, the percentage of consumer units providing various types of living arrangements.

Over one-third (38 percent) of units with a woman 65 years or older had a woman living alone;⁴ over one-third (36 percent) had a woman living with her husband only; and the remaining units (26 percent) had many combinations of relatives and nonrelatives. In 8 percent of the units the older woman was the reference person, but others (children, grandchildren, other relatives) lived with her. In 5 percent, the older woman lived with her husband, but others (children, grandchildren, other relatives) lived with them. Eight percent lived with a child—either a divorced or widowed child or a child and his or her spouse. Three percent of the units had siblings living together, and often they were both older women.

⁴Three of the 1,169 consumer units in this group had women who did not actually live alone. Each was the reference person in a one-person consumer unit but other consumer units shared the same dwelling. The three units belong in this group because the woman was financially independent (that is, provided two of three major expense categories) so data from the consumer unit reflected only her characteristics but her expenditures probably were affected by the fact that she shared a dwelling with other consumer units.

Although units with a woman 65 years or older were roughly distributed as one-third married couples, one-third women alone, and one-third other arrangements, the distribution was considerably different for units with a woman 75 years or older. In those units, about half (52 percent) were women living alone; about one-fourth (24 percent) were wife-husband families; about one-fourth (24 percent) were living in other living arrangements.

Comparisons of the Economic Well-Being of Units With Women 65 Years or Older

Income and Expenditures as Measures of Economic Well-Being

Income is often considered a measure of economic well-being. Various incomes are used: before-tax, after-tax, earnings, take-home pay, discretionary income, and others. Because income may fluctuate considerably for families who are self-employed or in certain occupations, total expenditures of the consumer unit are sometimes considered a proxy for permanent income.

Other measures of economic well-being may include wealth, savings, durables, earning potential, health status, leisure time, and public goods and services. Some measures establish standards of consumption (for example, nutrient intakes or housing features such as plumbing and electricity).

To compare the economic well-being of consumer units that include a woman 65 years or older, three of these measures (before-tax income, after-tax income, and expenditures) are shown in a portion of table 2. Consumer units were divided into three groups: women living alone, with husband only, and with others. It is recognized that the latter group included a wide variety of living arrangements and there were considerable differences within the group. The intent of

Table 1. Consumer units with women 65 years or older, 1988

Living arrangement	
	Percent
Woman, 65+ years, as reference person or spouse:	
Wife, husband only	36
Wife, husband and others	5
Woman reference person, only	38
Woman reference person, no spouse but others	8
Woman, 65+ years, lives with others:	
Lives with child who does not have a spouse	3
Lives with child who has a spouse	5
Lives with sibling (or sibling with her)	3
Lives with other relatives or nonrelatives	2

the comparison was to determine whether women 65 years or older living in one type of arrangement were better off than those living in other arrangements.

Both before-tax and after-tax incomes⁵ were considerably different among the three groups. Taxes were a higher proportion of income for the third family type. Mean expenditures, like mean incomes, were very dissimilar among the groups. For women living alone, average expenditures exceeded average after-tax income. Women in this group may have been drawing on savings. The other two groups spent less than their after-tax income.

Using any of these three measures (before-tax income, after-tax income, and expenditures), consumer units consisting of one woman were less well-off than units with others in the household. Average income was less than one-half that in the other two groups. Also, average expenditures, which measure the level of consumption, were much less for units with one woman.

⁵Including in-kind transfers in the measure of after-tax income improves the comparability of measures; this study included food stamps in the definition of income but did not have a value for government-supported housing.

Income and Expenditure Measures Adjusted for Household Size

Comparisons of economic well-being among these groups need to include an adjustment for household size. Clearly, a one-person household usually consumes less than a multi-person family. This adjustment is especially important when comparing older households to younger households or when comparing groups within the older population because a large proportion of older families are one-person households.

Two measures that adjust for household size are per capita measures and those based on equivalency scales (1,7). *Per capita* measures are simply the income or expenditures divided by the number of persons in the consumer unit. In this study, this was done at a household level; the calculations were made by dividing each household income or expenditures by the number of persons in that unit, and the average per capita income or expenditure is reported. An alternative way that yields different results is to divide the average income or expenditure of the group by the average household size for that group of households.

With the *equivalency* adjustment method used in this study, income and expenditures were modified for household size by using a ratio calculated from the poverty thresholds (1): The 1988 poverty threshold⁶ for two-person households (\$7,704) was divided by the threshold for a one-person household (\$6,024) to produce an index of 1.28. The ratio of thresholds for three-person to one-person households was 1.56; for four persons, 2.00; for five persons, 2.36; and for six or more persons, 2.68. The income or expenditure of each unit was divided by the appropriate ratio (for example, 1.28 for a two-person family).

Comparisons of Family Types Using Multiple Measures of Economic Well-Being

Which group of older women fared best overall? In table 2, comparisons can be made by the measure and by the three types of living arrangements. Considering income and expenditure measures, the woman living alone appeared worst off and the third family type fared best. When the *equivalency* measures were used, the woman

living alone still was worst off but the wife-husband families rated best. With *per capita* measures, the third type of family rated least well and the husband-wife family scored highest. Clearly, adjustments for household size produce substantially different pictures of economic well-being.

When stating the comparisons by living arrangements, the economic well-being of women who lived alone was less than the other groups using the first two measures. The wife-husband families rated best in the two measures that adjusted for household size. The third family type had the highest income and expenditures but when divided by the number of persons in the family, their per capita income and expenditures were the lowest of the three groups. Some of the factors that explain these differences among family types are addressed below.

Characteristics of Consumer Units as Related to Economic Well-Being

The discussion of factors related to economic well-being is facilitated by selecting a single measure of well-being. As stated previously, different measures produce

different results. For the remainder of this paper, *after-tax* income will be the measure used, because the tax payment was quite different among the groups (\$325 for women living alone, \$1,174 for wife-husband couples, and \$2,201 for other family types). Expenditures were not chosen as a proxy for income because they were quarterly numbers multiplied by four; since the income variables were annual numbers, they may be a more stable measure of income for this study.

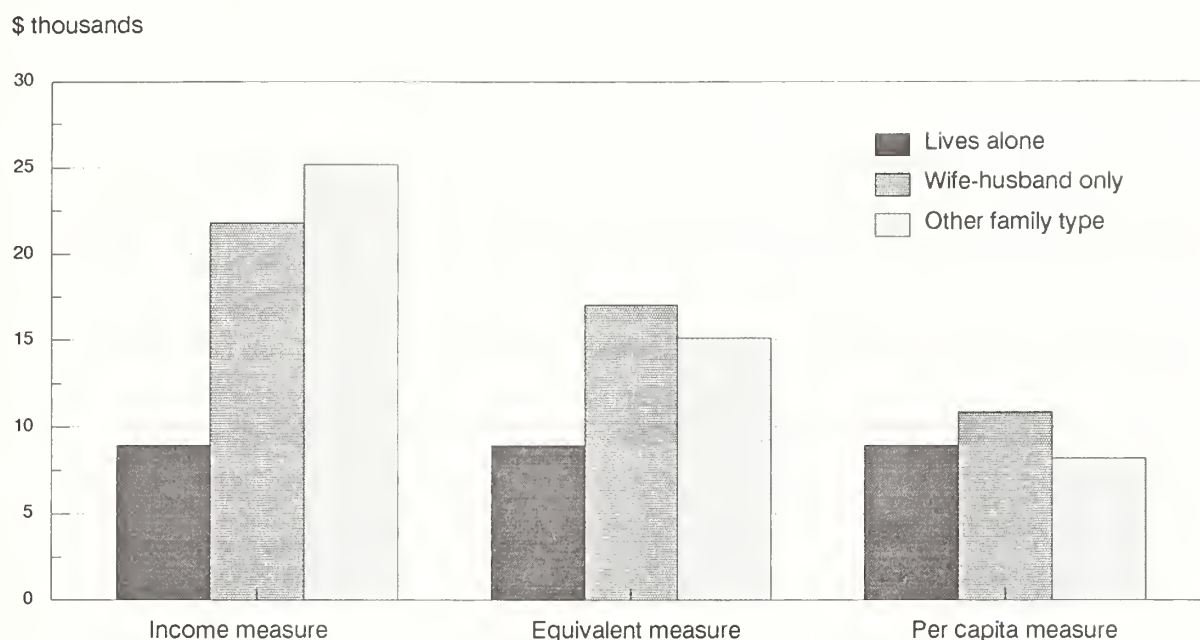
Equivalent after-tax income will be used for this comparison because it is a mid-way measure (see figure). Use of the income measure may overstate the economic well-being of the wife-husband and especially the other family type because their income must cover the costs of multiple family members. Yet, the per capita measure may understate the well-being of these two groups because it does not allow for the economies of scale they enjoy. Conversely, using the income measure may understate the well-being of a woman living alone because her income serves only one person, and the per capita measure may overstate her *relative* well-being because she does not experience economies of scale. The equivalent measure

⁶For poverty thresholds since 1965, see table, p. 32.

Table 2. Economic well-being of consumer units with a woman 65 years or older, using several measures of economic well-being, 1988

Measures of economic well-being	All consumer units with 65+ woman	65+ Woman lives alone	65+ Wife with husband only	Other family type with a 65+ woman
Income before tax	\$18,685	\$9,274	\$22,972	\$27,357
Income after tax	17,592	8,949	21,798	25,156
Total expenditures	16,709	9,557	19,786	23,572
Equivalent before-tax income	14,208	9,274	17,947	16,517
Equivalent after-tax income	13,409	8,949	17,029	15,136
Equivalent expenditures	12,859	9,557	15,458	14,261
Per capita income before tax	10,016	9,274	11,486	9,000
Per capita income after tax	9,487	8,949	10,899	8,232
Per capita expenditures	9,255	9,557	9,893	7,812

After-tax income of consumer units with a woman 65 years or older, using three measures of economic well-being, 1988



presented here represents economies of scale based on food expenditures since the poverty thresholds have a food expenditures base. Economies of scale for housing and transportation are greater than for food, so this index (1.28 for a two-person household, etc.) provides a measure that falls closer to the per capita income than if equivalency scales based on other commodities had been used.

Women Living Alone

The consumer units that were least well-off, using the equivalent after-tax income measure, were women living alone (see table 2). Population estimates from the data in this study indicate that nearly 6 million older women lived alone (see table 3). The average age of this group was 76 years, compared to 72 years for wife-husband families and 73 years for other family types. Three-quarters of women living alone reported incomes less than \$10,000. Their average after-tax income was \$8,949. Only 10 percent

were earners; 60 percent of their income came from Social Security (see table 4). A smaller proportion (49 percent) had a high school education, compared with the reference persons in the other groups.

There were other indicators that women who lived alone had a lower level of economic well-being. Twelve percent received Supplemental Security Income (SSI), and 10 percent received food stamps. They were less likely than other groups to live in a single-family detached home and more likely to have government support for housing or to live in public housing. Nearly half had no vehicle.

Owning a home is one indicator of assets. Women living alone (66 percent) were less likely than those in other groups (over 80 percent) to be homeowners. Dividends and interest from savings also indicate assets. There were similarities between this group and the third family type in levels of dividends and interest, but on average, levels were less than half those of wife-husband families.

Wife-Husband Families

Of the three groups, the wife-husband families fared best when income was adjusted for household size. The average age of the wife was 72, the youngest age of the groups. One-fifth had incomes of \$30,000 or more; the average after-tax income was \$21,798. Thirty percent had one or two earners. Nearly all received Social Security; the average amount was \$10,459. Only 6 percent were Black, compared with 11 percent of women living alone and 15 percent of the other family type. Only 2 percent received SSI and 1 percent received food stamps.

Wealth of these couples may be higher than for the other groups. Eighty-seven percent owned their house. Ninety-four percent owned one or more vehicles. Mean pensions, dividends, and interest on savings were two or three times the level of those for the other groups.

Table 3. Characteristics of consumer units with a woman 65 years or older, 1988

Characteristics	All consumer units with 65+ woman	65+ Woman lives alone	65+ Wife with husband only	Other family type with a 65+ woman
Number in sample	3,067	1,169	1,110	788
Population estimate (in thousands) . .	14,343	5,608	5,240	3,495
Characteristics of consumer unit:				
Number in consumer unit	1.9	1.0	2.0	3.2
	<u>Percent</u>		<u>Percent</u>	
Income groups:				
<\$10,000	41	76	16	21
>\$30,000	16	3	20	33
Number of earners:				
0	67	90	70	25
1	23	10	25	42
2+	10	0	5	33
Education of reference person:				
High school graduate or more . .	52	49	55	55
Race of reference person:				
White	89	88	94	82
Black	10	11	6	15
Number of vehicles:				
0	23	45	6	13
1	41	51	38	30
2+	36	4	56	57
Region:				
Urban:				
Northeast	19	20	17	22
Midwest	21	21	21	20
South	25	23	25	29
West	17	17	17	16
Rural	18	19	20	13
Housing unit:				
Single family detached	70	57	78	79
Housing tenure:				
Owner	77	66	87	81
Government-supported housing . . .	5	10	3	3
Characteristics of woman 65 years or older:				
Age (years)	74	76	72	73
	<u>Percent</u>		<u>Percent</u>	
Marital status:				
Married	44	2	100	28
Widowed	45	80	NA	59
Divorced or separated	7	10	NA	10
Never-married	4	8	NA	3

NA = Not applicable.

Table 4. Income of consumer units with a woman 65 years or older, 1988

Source of income	All consumer units with 65+ woman	65+ Woman lives alone	65+ Wife with husband only	Other family type with a 65+ woman
Wages and salaries	\$ 4,694	\$ 672	\$ 2,311	\$14,718
Social Security ¹	7,660	5,565	10,459	6,824
65+ Woman's Social Security ²	4,555	5,565	3,788	4,086
Pensions	2,659	1,254	4,561	2,060
Dividends	796	543	1,139	690
Savings account interest	1,385	859	2,325	821
Supplemental Security Income	141	144	17	322
Food stamps	34	38	1	80
Other	1,316	199	2,159	1,842
After-tax income	\$17,592	\$8,949	\$21,798	\$25,156
Before-tax income	18,685	9,274	22,972	27,357

¹Social Security received by members in the consumer unit.

²Social Security received by the older woman (or one of the women if there were two or more who were 65 or older).

Other Family Type With a Woman 65 Years or Older

Although these families had the highest average income, they also had the largest household size, an average of 3.2 persons. Of these units, 31 percent consisted of an older woman living with her children and their families; 33 percent were reference persons with children or others living with her; 20 percent were couples with children or others living with them; 9 percent consisted of siblings; and 7 percent were composed of an older woman and other relatives or nonrelatives.

Because many of these families included younger persons, most (75 percent) had one or more earners and one-third had incomes of \$30,000 or more. Also, 23 percent had a reference person less than 65 years of age. They were more likely to live in the urban South than other groups. A larger proportion (15 percent) in this group were Black than in other groups. Twenty-eight percent of the older women were married.

More than half of the income of these families was in the form of wages and salaries. Social Security was received by 87 percent. The contribution of the older woman to the family may be represented, in part, by the Social Security she received. Amounts of Social Security received by all eligible members are shown in table 4; amounts received by the woman (or one of the women if there were two or more) are specified as Woman's Social Security.

For this other family type, on average, an older woman received \$4,086, or 60 percent of the Social Security received by the family. In wife-husband families, the wife's Social Security was about one-third of total Social Security received.

As a percentage of total *before-tax* income, the woman's Social Security was 15 percent in these other families, about the same as for couples. In contrast, for women living alone, Social Security accounted for 60 percent of income.

Comparisons of Women Living Alone to Those Living With Others

Women without husbands live alone, live with others, or have others living with them. The decision to live alone or with others involves factors such as health, attachment to a home, availability and suitability of potential companions, and many other considerations, economics being only one.

This study indicated that women living alone, compared to those living with others (the third family type), were older. They were more likely to be in rural areas, less likely to be in the urban South, and less likely to be Black. They may have had more resources. The Social Security received by the woman living alone was \$5,565, compared to \$4,086 received by a woman (one of the women if there were two or more older women in the unit) in the other family type. Since Social Security is a major source of income for older persons and reflects their work histories or that of deceased spouses, this may indicate that women who were more able to live on their own did so. However, the

economic well-being of a woman who lived with others (or had others live with her) appeared to be better than that of a woman who lived alone when an equivalent income measure was used for comparison.

Thus, women living with others may have less income of their own, but the economic well-being that results from sharing resources with others may be greater than that achieved by women who lived alone. It should be noted that this statement is based on limited data.

More information about the assets and wealth of older women, separate from that of the consumer unit's resources, is needed. Also, the older woman in a multi-person household may not share equally in the distribution of family resources. The assumption in equivalent income measures for economic well-being is that each family member received an equal share of the resources, but that may not be the case, especially if an older woman lives with her children and grandchildren.


Implications

Clearly, the measure chosen to assess economic well-being is critical to the results. Policymakers may need to employ multiple measures when determining economic need. Educators may consider various measures in determining target audiences for financial and consumer education programs. Researchers may expand and test additional measures.

Also, this study showed the high relative well-being of older wife-husband couples living by themselves. Attention needs to be focused on older women living alone and in other types of living arrangements.

In the short run, assistance in finding information about available government and community resources may be needed, particularly for women living alone. Perhaps some women could consider living with others to share costs. In the long run, individuals and employers, when planning retirement programs, must consider increased longevity among women and trends for increased likelihood of women living alone instead of with other family members (2).

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Income and Expenditures of Families With a Baby

By Mark Lino

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Family Economics Research Group

The birth of a baby has important economic implications for households. To obtain a better understanding of these ramifications, Part 1 of this study examined the income and expenditures of husband-wife households: without children, with a baby, and with a baby and other children. Cross-sectional data from the 1989 Consumer Expenditure Survey showed that income and expenditures were higher for households without a baby than for those with a baby, although the difference for expenditures was of less magnitude than that for income. Part 2 of this study focused on changes in household income and expenditures immediately after having a baby. A longitudinal analysis of the 1987–89 Consumer Expenditure Surveys determined that real household income declined by 3 percent immediately after the birth of a baby, whereas real total expenditures rose by 20 percent.

During the 1960's and early 1970's, the fertility rate¹ in the United States dropped significantly, from 118 in 1960 to 73 in 1972 (see figure, p. 10). More career opportunities available to women, greater access to birth control, and higher costs of living generally are associated with this decline. The fertility rate ranged from a low of 65 to a high of 71 live births per 1,000 women ages 15 to 44 over the 1973–90 period, generally moving upwards during the latter years of this period.

Coupled with this has been a steady increase in the number of births in the United States. In 1990 about 4.2 million births were

recorded, the highest since 1961. This growth has been attributed to the greater number of women of child-bearing age, many of whom were born between 1946 and 1964, the baby boom years.

The birth of a baby has important economic implications for a family. Previous research examined direct expenditures on a child by parents (2,4,7,10,11) as well as indirect expenses (1). To supplement this research, this study examines income and expenditure patterns of husband-wife households with a baby versus those without children (Part 1), and changes in household income and expenditures immediately after having a baby (Part 2). This may give family policymakers and professionals a better understanding of the impact children have on family economic well-being.

Part 1 – Households With and Without a Baby

Data and Analysis

Data used to examine income and expenditure patterns of husband-wife households with a baby versus those without children are from the interview component of the 1989 Consumer Expenditure Survey (CEX) (13). The Survey contains data on household characteristics, income (including employment status), and expenditures. A nationally representative sample of 5,000 consumer units, which are equivalent to households or families in this study, are interviewed each quarter

over four consecutive quarters.² The sample is rotating, in that one-fourth of the households are replaced by new households each quarter. For the purposes of estimating descriptive statistics, each quarter is deemed an independent sample.

Husband-wife households with both spouses between 18 and 35 years of age and who were complete income reporters were selected.³ Households containing members other than own children, such as extended family, were excluded. Also excluded were households where either spouse was a student and not working because their economic status would not be typical of most husband-wife households. Comparisons of mean income and expenditures were made among families (1) without a baby, (2) with a baby, but no other children, and (3) with a baby and other children.

A baby was defined as a child age 1. If a baby had been defined as a child under age 1, the child could have been born toward the end of a quarter. In such situations, household income and expenditures might not fully reflect the presence of the child. Unweighted sample sizes of the groups were 659, 160, and 214, respectively. The data were weighted to reflect the population of interest.

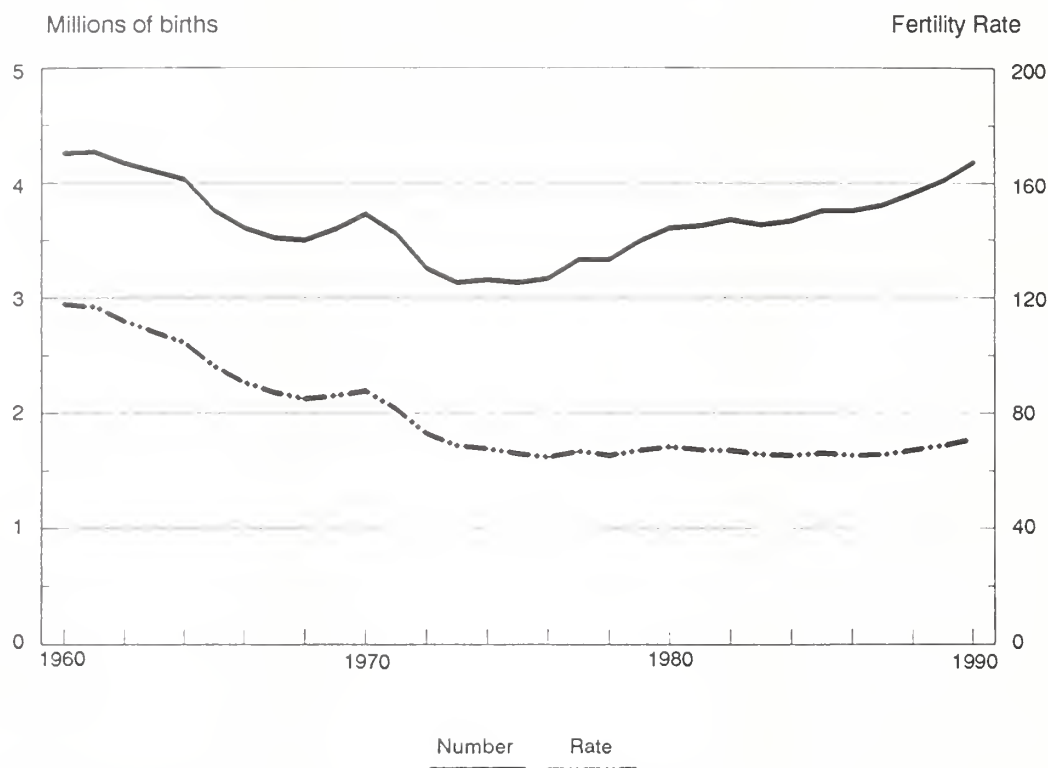
Differences in income and expenditures among the groups may not be due entirely to the presence of a baby; many other factors could be contributing. However, the presence of a baby and other children was a major factor differentiating the three groups.

²The survey actually interviews households over five consecutive quarters; however, data from the first interview are used for bounding purposes only.

³Complete income reporters are defined as consumer units that provide values for major sources of income, such as wages and salaries, self-employment income, and Social Security income.

¹The fertility rate is defined as the number of live births per 1,000 women ages 15 to 44.

Number of births and fertility rate for women ages 15 to 44, 1990



Source: U.S. Department of Health and Human Services, Public Health Service, *Monthly Vital Statistics Report* Vol. 39, No. 12 (1991) and No. 4, Supplement (1990).

Characteristics

In 1989 there were approximately 3.20 million husband-wife households where both spouses were between ages 18 and 35 with no children, 0.69 million with a baby age 1, and 0.96 million with a baby age 1 and other children (average household size was four for these families). In both husband-wife-only families and husband-wife families with a baby, the average age of husbands was 28 years and that of wives, 27 years. For husband-wife families with a baby and other children, the average age of both spouses was slightly older, 30 years for husbands and 28 years for wives.

Males in husband-wife-only households tended to have a higher level of education than their

counterparts with children. Thirty-four percent of males in families without children had a college degree, compared with 31 percent of males in households with a baby and no other children and 27 percent in households with a baby and other children. This same pattern held for wives; 35 percent of females in husband-wife-only families had a college degree, compared with 27 percent of their counterparts with a baby only and 20 percent with a baby and other children.

A higher percentage of husband-wife households with a baby and other children were non-White (11 percent), compared with households with a baby only or with no children (6 and 4 percent, respectively).

Income

Average before-tax income was highest in husband-wife-only households (\$41,636) (table 1). Before-tax income was 15 percent lower for husband-wife households with a baby and no other children (\$35,274) and 21 percent lower for husband-wife households with a baby and other children (\$32,879) than for couples without children. Of husband-wife-only households, 19 percent had a before-tax income below \$20,000 and 45 percent had an income of \$40,000 and over. For couples with a baby only, 32 percent had a before-tax income below \$20,000 and 34 percent, \$40,000 and over. For couples with a baby and other children, 30 percent had a before-tax income below \$20,000 and 29 percent, \$40,000 and over.

The percentage of husbands working in the labor force during the past year (99 to 100 percent) was nearly the same for all three family groups. The major difference was in the percentage working full-time, full-year, and part-time, full-year. (Full-time was defined as working 35 or more hours per week and part-time was less than 35 hours per week; full-year was defined as working 50 or more weeks per year, including any time off with pay.) A higher proportion of husbands with a baby and other children worked full-time, full-year (82 percent) than their counterparts with a baby only and without children (75 and 77 percent, respectively). A lower proportion of husbands with a baby and other children (1 percent) worked part-time, full-year than those with a baby only and without children (6 and 5 percent, respectively).

Compared with husbands, there was a greater difference in the employment status of wives among the three family groups, particularly for those working full-time, full-year and those not working. Fifty-nine percent of wives without children worked full-time, full-year and only 5 percent were not working. For wives with a baby only, the percentages were 31 and 24 percent, respectively, and for wives with a baby and other children, the percentages were 18 and 39 percent, respectively. The presence of children decreases the labor force participation of females to a greater degree than that of males.

Expenditures

Average total expenditures (\$31,624) were highest for husband-wife-only families. Differences in total expenses between the three groups were not as extreme as those observed in income. Total expenditures were 6 percent lower for both husband-wife households with a baby and no other children and those with a baby and other children (\$29,711 and \$29,786, respectively) than for couples without children.

Table 1. Mean annual income, expenditures, and wife's employment status for young husband-wife households with and without a baby, 1989

Characteristic	Husband-wife only	Husband-wife and baby	Husband-wife, baby, and other children
Before-tax income	\$41,636	\$35,274	\$32,879
After-tax income	37,248	33,221	30,517
Total expenditures	31,624	29,711	29,786
	<u>Percent of total expenditures</u>		
Housing	32	31	31
Transportation	23	22	21
Food at home	8	11	13
Food away from home	5	3	3
Clothing	5	6	5
Health care	2	4	4
Entertainment	5	4	5
Child care	0	4	3
Retirement	12	9	9
Other	8	6	6
Wife's employment:			
Full-time, full-year	59	31	18
Part-time, full-year	10	9	6
Full-time, part-year	19	15	16
Part-time, part-year	7	21	21
Not working	5	24	39

Housing accounted for the largest share of total expenditures, 31 or 32 percent, for the three family groups. Mean housing expenditures were lower for the two groups of households with a baby than for childless couples. The home ownership rate, however, was higher for households with a baby (53 percent for couples with a baby only and 58 percent for those with a baby and other children) than for couples without children (49 percent). Possibly, couples with children may have purchased homes before prices escalated or childless couples may rent more expensive apartments.

Transportation made up the second largest share of total expenditures for all three family groups, 21 to 23 percent, and was highest for husband-wife-only households.

Food at home was highest, as a percentage of total expenses (13 percent) and in dollar amount (\$3,981), for husband-wife families with a baby and other children. This is not surprising, given their larger family size. Food away from home accounted for a larger share of total expenditures in husband-wife-only households (5 percent) than in families with a baby or a baby and other children (3 percent). The greater labor force participation of wives and absence of children make eating out more convenient and less difficult for these families.

The three family groups spent 5 or 6 percent of total expenditures for clothing and 4 or 5 percent for entertainment. Health care accounted for a larger percentage of total expenses and a higher dollar

amount among the two groups of households with children, 4 percent and over \$1,100, compared with 2 percent and \$761 in husband-wife-only families. Retirement expenses, which includes Social Security payments, accounted for a larger share of total expenditures for husband-wife-only families (12 percent) than for their counterparts with children (9 percent). Wives were most likely to be employed in the labor force in husband-wife-only households.

Child care expenses accounted for 3 or 4 percent of total expenditures for the two groups of families with children. Although this may seem low, a study by the Census Bureau on child care arrangements in 1986–87 found that 40 percent of children age 1 were cared for by a relative, such as a father or grandparent, when the mother was at work (6). Care by a relative would diminish the need for more costly forms of child care. Other expenses (personal care, education, etc.) were higher for husband-wife-only households than for families with children, probably because the former group has more discretionary income.

Part 2 – Households Immediately After Having a Baby

Data and Analysis

Data used to examine changes in income and expenditures immediately after having a baby are from the interview components of the combined 1987–89 CEX. Husband-wife households who had a baby between the first and fourth interview (the baby being born during the second or third interview periods) and who were complete income reporters, with no other persons living in their home except own children, were selected.⁴ Households

in which either spouse was not working because of student status were excluded. The sample consisted of 83 families. Because of the size of the sample, the data were not weighted to reflect the national population, and may be regarded as a pilot study of these households.

Data on income and employment status are collected from households at the end of each quarter and apply to the past 12 months, whereas expenditure data apply to the past 3 months. Analysis was undertaken for the first interview (before a baby was born) and the fourth interview (after the birth). Given the sample size, median income and expenditures were used to minimize the impact of extreme values. Dollar values

for 1987 and 1988 were converted into 1989 dollars using the overall Consumer Price Index for Urban Consumers (CPI-U) for income and total expenditures, and individual budgetary component CPI-U's for the selected expenditures.

As with the analysis in Part 1, changes in income and expenditures that occur between the first and fourth interview may not result exclusively from the birth of a baby. For any household, numerous other events could produce income and expenditure changes, such as a family member taking a new job or requiring special medical care. However, one of the major occurrences for these households between the two quarters was the birth of a baby.

Medical Costs of Having a Baby in 1989

Health care expenditures before and after having a baby were not examined using the CEX as these expenses may be incurred in one quarter and paid in another and may or may not include insurance reimbursement. Total medical costs involved in having a baby, however, are substantial (see table below). In 1989, the average cost of a normal delivery was \$4,334 in the United States and that of a cesarean delivery was 66 percent higher at \$7,186. These costs were highest in the Northeast and West and lowest in nonmetropolitan areas. Direct costs to households are typically lower because more than 95 percent of employees covered by employer-sponsored group policies have maternity benefits. Cesarean deliveries are becoming more common, accounting for 25 percent of all births in 1989, compared with 17 percent in 1980 (3). A recent study (9) found that nonclinical variables such as hospital ownership and payment source influenced the choice between cesarean and normal deliveries, thereby calling into question the need for this more costly delivery procedure.

Total medical costs of having a baby, 1989

Region or area	Type of delivery	
	Normal	Cesarean
U.S. average	\$4,334	\$7,186
Northeast	4,456	7,879
Midwest	4,149	6,741
South	4,204	7,087
West	4,237	7,586
Nonmetro	4,128	6,736

Note: Nonmetro areas are in all four regions.

Source: Health Insurance Association of America, *Source Book of Health Insurance Data*, 1990 edition.

⁴The first and fourth interviews do not necessarily have to be those at the beginning and end of a calendar year because of the rotating sample in the CEX. For example, the first interview for a household could be mid-1987 and the fourth interview, mid-1988.

Characteristics

At the time of the first interview, the median age of husbands in the sample was 29 years and that of wives, 27 years. A college degree was reported by 33 percent of husbands and 28 percent of wives; 7 percent of husbands and 8 percent of wives reported less than a high school diploma. About 95 percent of the families were White. Forty-one percent of the couples were having their first child and 39 percent, their second, with 20 percent having a third child (or more). The sample is different from the overall population of women who had a baby in 1988 (see box, p. 14) in that all mothers were married, they were more educated, and a greater proportion were White.

Income

For couples in the sample, median annual after-tax income, in real terms, declined 3 percent (\$35,013 to \$34,047) from the first interview (before a baby was born) to the fourth interview (after birth) (table 2). There was little change in husbands' employment status from the first to fourth interviews. Eighty-two percent of husbands reported working full-time, full-year in the first interview, compared with 83 percent in the fourth interview. Thirteen percent of husbands were working full-time, part-year in both the first and fourth interviews; only 1 percent of males reported not working during the past year in either interview period. Real median annual earnings of males in the sample was similar in the quarters before and after birth (\$26,205 and \$26,197).

Unlike their husbands, wives in the sample had a considerable shift in their employment status over the interview periods. This shift was primarily from working full-year to working part-year. In the first interview, 31 percent of wives reported

Table 2. Median annual income, quarterly expenditures, and wife's employment status before and after birth of a baby, 1987-89

Characteristic	Before birth (First interview)	After birth (Fourth interview)	Percent change
<u>1989 dollars</u>			
After-tax income	\$35,013	\$34,047	- 3
Total expenditures	\$6,625	\$7,345	+ 11
Housing	1,911	2,168	+ 13
Transportation	794	697	-12
Food at home	692	831	+20
Food away from home	229	131	-43
Infant's clothing	0	127	NA
Child care	0	6	NA
<u>Percent</u>			
Wife's employment:			
Full-time, full-year	31	11	
Part-time, full-year	16	5	
Full-time, part-year	6	25	
Part-time, part-year	11	21	
Not working	36	38	

N = 83.

NA = Not applicable.

working full-time, full-year, and 16 percent were working part-time, full-year during the past year. By the fourth interview, 11 percent of women reported working full-time, full-year, and 5 percent were working part-time, full-year during the past year.

Wives who reported working full-time, part-year increased from 6 to 25 percent, and those who were working part-time, part-year rose from 11 to 21 percent over the interview periods. This increase in working during only part of the year likely was because many women were on unpaid maternity leave or had exited the labor force. A study by the Census Bureau found that among women who would return to work within a year of having a child, 40 to 50 percent delayed their return to work by more than 3 months (5).

Also, 28 percent of women quit their jobs at some point during their pregnancy or shortly after giving birth.

Given this large shift in the employment status of wives, a larger than 3 percent decline in after-tax income may have been expected. The small decrease probably reflects income being measured on an annual basis; fourth quarter income likely would show a larger decrease. Also, hourly earnings of women typically are less than those of men, thereby diminishing the impact of a change in wives' labor force participation on household income. In 1988 mean earnings of men employed full-time were 57 percent greater than those of women employed full-time (8).

Characteristics of Women Having a Baby in 1988

Data for any 12-month period during 1987-88 show that of the approximately 3.7 million women ages 18 to 44 who had a baby, 22 percent were not married at the time (see table). This percentage likely would be higher if females under age 18 were included. In 1976 only 17 percent of women ages 18 to 44 who had a baby were unmarried (12). In 1988 the majority (65 percent) of women having children were between the ages of 18 and 29. The fertility rate was highest for those ages 25 to 29, 114 births per 1,000 women in this age range, compared with 9 to 87 births per 1,000 women in the other age groups.

Seventy-nine percent of babies born in 1988 were to White women. Black women had a higher fertility rate than Whites (87 births per 1,000 Black women vs. 66 per 1,000 White women). The fertility rate of Hispanic women (who could be of any race) was also higher than that of non-Hispanic women. Most women (72 percent) who had a baby had a high school diploma, but the fertility rate was highest among non-high-school graduates, 87 births per 1,000 women.

Of women who had a baby in 1988, 49 percent were not in the labor force at the time, 45 percent were employed, and the remainder were unemployed (not working, but looking for work). The fertility rate was much higher for women not in the labor force than for those employed. The majority (58 percent) of women who had a baby had a family before-tax income under \$30,000 in 1988. Thirteen percent had a family before-tax income of \$50,000 or over. Women in lower income households had a higher fertility rate than those in upper income households.

Characteristics of women ages 18 to 44 who had a child, 1988

Characteristic	Percent	Fertility rate (births per 1,000 women)
Marital status:		
Married	78	91
Divorced or widowed	5	37
Single	17	39
Age:		
18 - 24	31	87
25 - 29	34	114
30 - 34	24	82
35 - 39	9	34
40 - 44	2	9
Race:		
White	79	66
Black	16	87
Other	5	NA
Ethnic origin:		
Hispanic	11	94
Non-Hispanic	89	68
Education:		
Not a high school graduate	18	87
High school graduate	43	72
Some college	21	61
College degree	18	63
Labor force status:		
Employed	45	46
Unemployed	6	85
Not in labor force	49	128
Family income:		
Under \$10,000	22	106
\$10,000 - \$14,999	10	76
\$15,000 - \$19,999	8	73
\$20,000 - \$29,999	18	68
\$30,000 - \$34,999	8	61
\$35,000 - \$49,999	17	70
\$50,000 and over	13	50
Not reported	3	43

Source: U.S. Department of Commerce, Bureau of the Census, 1989, *Fertility of American Women: June 1988*, Current Population Reports, Population Characteristics, Series P-20, No. 436.

NA = Not available.

Expenditures

Median quarterly total expenditures, in real terms, increased 11 percent (\$6,625 to \$7,345) from the interview before a baby was born to the interview after birth. Of the budgetary components examined, food at home had the largest percentage increase (20 percent), and food away from home had the largest decrease (43 percent) between the quarters. Eating away from home becomes more difficult with infants.

Housing expenses increased 13 percent from the first to fourth interviews. This probably reflects the purchase of home furnishings, which are included in overall housing expenses, for a baby. Home ownership did not change over the two interview periods. Seventy-one percent of the sample were homeowners in each quarter.

Transportation expenses decreased 12 percent over the period. Reduced work-related commuting costs that result from declining numbers of employed women is likely the reason for this.


Infants' clothing expenses were zero in the first interview and \$127 in the fourth. These infant clothing expenses include only those incurred by parents and not those made by other family members or friends.

Median child care expenses were zero in the first quarter and \$6 in the fourth. Child care expenses are low for the fourth quarter because many in the sample reported zero expenditures. Mean child care expenses in the fourth quarter were much higher (\$210).

Conclusion

This study examined income and expenditures at one point in time for three groups of husband-wife households (those without children, those with a baby age 1 and no other children, and those with a baby age 1 and other children) and changes in income and expenditures of husband-wife households immediately after having a baby. Children's influence on household income and expenditures, however, is long term; different goods and services are purchased over the years and parents often alter their career paths. Further research needs to focus on these longitudinal effects of children to obtain a clearer picture of the impact of children on family economic well-being.

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Food Trends

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Changes in the food consumption patterns of Americans are taking place. This article presents data that suggest the reasons for these changes, including rising prices, expenditures, nutritional guidelines, demographics, changes in the marketing of food in supermarkets and restaurants, and Government programs and regulations. During 1990, food prices increased more than the overall inflation rate, as measured by the Consumer Price Index (CPI). Americans allocate about 15 percent of their total expenditures for food—the lowest percentage of any country in the world. Food away from home accounts for 42 percent of the U.S. food dollar. There is a trend toward fewer but larger supermarkets, with greatly expanded types of products and services offered. Over 16 percent of the population receives some form of food assistance, such as food stamps, vouchers, commodities, and cash. Federal legislation designed to reduce consumer confusion concerning food labeling became law in 1990. Professionals in food economics education and in the food industry are provided with an overall perspective on trends in food consumption.

Prices, Expenditures, and Consumption

Prices

The increase in the Consumer Price Index (CPI) for food was 5.8 percent in 1990, identical to the increase in 1989. For the fourth year in the past 5 years, the increase in food prices was greater than the CPI increase for all items (17). Overall inflation was 5.4 percent in 1990, up from 4.8 percent in 1989. Prices for food eaten at home increased 6.5 percent and for food eaten away from home, 4.7 percent. The price of alcoholic beverages

also increased 4.7 percent (table 1). The CPI for food away from home surpassed the CPI for food at home in 1983 and has remained higher every year since then.

A sluggish economy will influence prices restaurateurs charge for meals. According to the National Restaurant Association's 1990 Tableservice Operator Survey, about half of table service restaurant operators have added lower priced items to their menus since January 1989, and about one-third of those with a per-person average check of \$15 or more have cut prices. The National Restaurant Association expects restaurant prices to increase 4.6 percent in 1991 and the overall inflation rate to be 5.1 percent, both down slightly from the increases in 1990 (4).

Expenditures

In 1990 Americans spent \$546.3 billion on food (81 percent paid by households, 17 percent by government and businesses, and 2 percent produced and consumed at home with relatively little cash outlay) and \$79.7 billion on alcoholic beverages (12).

To obtain data on food and beverage purchases, the Bureau of Labor Statistics administers a diary portion of the Consumer Expenditure Survey (CEX). About 5,000 households are surveyed every 3 months over a 1-year period. Households keep an expenditure diary for 2 consecutive weeks. The diary survey obtains data on small, frequently purchased items that are normally difficult to recall, including food, beverages, tobacco, house-keeping supplies, and personal care products. It excludes expenditures incurred while respondents are away from home overnight or longer (18).

The average annual expenditure per household in 1989 was \$4,152 for food and \$284 for alcohol (16). Between 1988 and 1989, food expenditures rose 10.8 percent and alcohol expenditures rose 5.6 percent, compared with a 7.4-percent increase for all expenditures (table 2). Expenditures for food at home¹ rose more than expenditures for food away from home,² 11.9 percent compared with 9.3 percent. The food category with the greatest annual increase was cereal and bakery products, which rose 15.1 percent. Households in the West had the highest food-at-home expenditures

¹Includes food and nonalcoholic beverages from grocery, convenience, and specialty stores and food prepared while on out-of-town trips (18).

²Includes school meals, catered affairs, food on out-of-town trips, and meals received as pay, as well as dining in restaurants (18).

Table 1. Consumer Price Index for all urban consumers 1989–1990 (1982–84 = 100)

	1989	1990	Percent change
All items	124.0	130.7	5.4
Food	125.1	132.4	5.8
Food at home	124.2	132.3	6.5
Food away from home	127.4	133.4	4.7
Alcohol	123.5	129.3	4.7

Source: CPI News Release, December 1990.

Table 2. Annual expenditures of all consumer units and percent change, Integrated Consumer Expenditure Survey, 1988 and 1989¹

Item	1988	1989	Percent change
Income before taxes	\$28,540	\$31,308	9.7
Average annual expenditures	25,892	27,810	7.4
Food	3,748	4,152	10.8
Food at home	2,136	2,310	11.9
Cereal and bakery products	312	359	15.1
Meat, poultry, fish, eggs . . .	551	611	10.9
Dairy products	274	304	10.9
Fruits and vegetables	373	408	9.4
Other food at home	625	708	13.3
Food away from home	1,612	1,762	9.3
Alcoholic beverages	269	284	5.6

¹Table includes data from both the Diary and Interview components of the Consumer Expenditure Survey. The BLS has published integrated data from the two surveys since the release of 1987 data.

Source: U.S. Department of Labor, Bureau of Labor Statistics, 1990, *Consumer Expenditures in 1989*, USDL 90-616.

and the highest alcohol expenditures, and households in the Northeast had the highest food-away-from-home expenditures (16).

Among CEX complete income reporters³ in 1989, food expenditures accounted for 14.8 percent of total annual household expenditures. The percentage of annual expenditures spent on food decreased with increasing income, and ranged from 18.0 percent for households earning less than \$5,000 per year to 12.6 percent for households earning over \$50,000 per year (16).

Food away from home accounted for 42 percent of the U.S. household food dollar in 1989. Households earning over \$50,000 per year had higher expenditures for food away from home than for food at home (see figure, p. 18). Single consumers and those under age 25 also spent nearly 50 percent of their food budgets on food away from home. The oldest households, those age 75 and over, spent the lowest share of their food dollar in restaurants (32 percent) (16).

³Respondents who provided values for major sources of income, such as wages and salaries, self-employment income, and Social Security income.

Consumption

Food consumption patterns are influenced by a variety of factors, including diet and health concerns, changes in real disposable income, the availability of convenience foods, governmental food programs, demographic patterns related to an aging population, smaller household size, and an increasing proportion of ethnic minorities in the population. In 1989 Hispanics accounted for 8.3 percent of the population and Asians, 2.8 percent. Their cuisines, which include more rice and specialty vegetables, such as snow peas and chili peppers, are becoming increasingly popular among the general population (10).

Nutrition awareness is at an all-time high. The Nation's two nutrition-related priorities are to reduce the intake of foods high in saturated fat and cholesterol and to increase the consumption of complex carbohydrates and fiber. As a result, there has been a proliferation of fat-free and lowfat foods in the market. Lowfat milk consumption accounted for 19 percent of total milk consumption in 1970, 38 percent in 1980, and 53 percent by

U.S. consumers spend less of their income on food eaten at home than people in other countries. In less developed countries, such as Sudan, India, and the Philippines, at-home expenditures for food account for more than half of total personal consumption expenditures.

Among the 30 countries for which data were available, the United States ranks near the middle in spending for food away from home. Americans spent 6.1 percent of their total expenditures in restaurants, cafes, and hotels in 1986 (most recent data available). Spending for food away from home ranged from 1.0 percent in India to 15.7 percent in Jamaica (6).

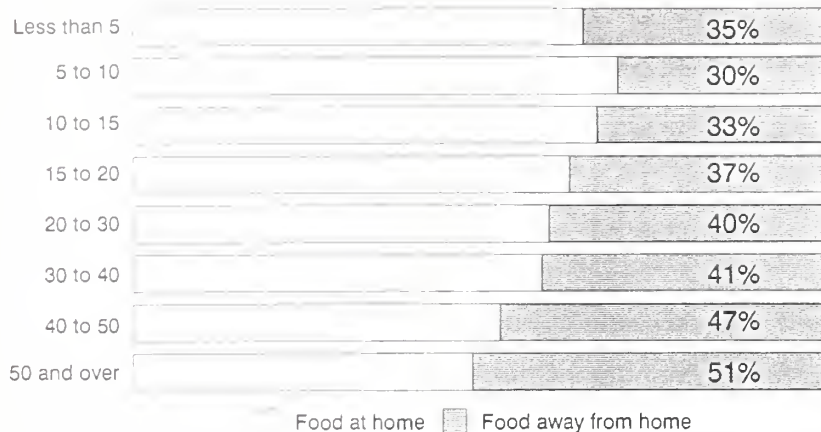
1988 (11). Health-oriented consumers are eating more grains, fruits, and vegetables and less red meat (4).

Per capita consumption of red meat dropped from 123 pounds in 1980 to 115 pounds in 1988, a decline of 7 percent. Per capita consumption of poultry and fish increased 34 percent and 17 percent during this period (table 3, p. 19). Forecasts for 1991 put red meat and beef per capita consumption at their lowest levels since the early 1960's (11). Although nutritional concern about fat and cholesterol consumption is a factor contributing to these changes, another is the high relative prices for red meats and high production costs compared with the costs of producing poultry (11). The higher quality and greater variety of oven-ready and microwavable prepared foods have also boosted fish and seafood consumption (10). Despite these trends, the United States leads the world in consumption of red meat and poultry, followed by Australia, Argentina, and New Zealand.

Increases in the consumption of cream and sour cream, cheese, flour and cereal products, vegetable fats and oils, fresh and processed fruits, and fresh and frozen vegetables and

Portion of food dollar spent on food away from home, by income level before taxes, Consumer Expenditure Survey, 1989

\$ thousand



potatoes and decreases in animal fats and oils and canned vegetables occurred between 1980 and 1988. Also, per capita tea consumption decreased 5 percent, coffee consumption decreased 9 percent, and milk consumption decreased 6 percent, as soft drink consumption increased 17 percent (11). Diet soft drinks captured 27 percent of the soft drink market in 1989, compared with 16 percent in 1980 (10). There has also been an increase in the consumption of fruit juices and drinks (11) (table 4, p. 20).

Per capita consumption of eggs has declined steadily since the end of World War II from an all-time high of 403 eggs in 1945 to 235 in 1989 (11). Whereas shell egg use declined, consumption of eggs in the form of egg products rose, reflecting greater use of eggs in food service establishments and in food products such as pasta and sweet baked goods (10). The per capita consumption of low-calorie sweeteners including saccharin and aspartame, reported on a sugar-sweetness equivalent basis, increased from 7.7 pounds in 1980 to 20 pounds in 1988 (11).

Although adult per capita consumption of distilled spirits decreased 26 percent between 1980 and 1988 and consumption of beer decreased 7 percent, wine consumption has not changed during this period (11) (see table 4, p. 20). Light beer's share of the market was 27 percent in 1989, compared with 13 percent in 1980 (10). The wine market is expected to expand by 12 percent between 1990 and 2000, and the slower growing beer market, by 8 percent. The baby boomers are moving into their middle years and are changing the Nation's drinking habits. Whereas beer drinking peaks at ages 20 to 24, wine drinking peaks at ages 50 to 54. Income and educational levels also influence wine consumption. Nineteen percent of college graduates are moderate to heavy wine drinkers (defined as people having at least two drinks a week), compared with 10 percent of those with only a high school education. Also, 20 percent of people with incomes of \$60,000 or more are moderate to heavy wine drinkers (2).

Trends

Supermarkets

There is a trend toward fewer but larger supermarkets that are becoming one-stop shopping places containing florist shops, bakeries, photo finishing centers, and pharmacies, with some even offering home delivery. According to the Food Marketing Institute, median supermarket size increased from 23,000 square feet in 1981 to 35,000 square feet in 1989 as retailers expanded the variety of products and services offered. Despite the decline in the total number of supermarkets from 26,321 to 23,000 over the last decade, shoppers can take advantage of a wider variety of grocery store options due to the advent of combination food and drug stores, superstores, hypermarkets,⁴ warehouse stores, and wholesale club stores (5).

In 1989 over 12,000 new food and grocery products were introduced, excluding new size introductions. About 62,000 new products were introduced between 1982 and 1989. Between 90 and 99 percent of new products fail, as even a superstore can stock only about 60,000 items (15).

Food service (dispensing prepared meals and snacks for on-premise or immediate consumption) has become an area of new growth in the grocery store industry. According to a 1989 Supermarket Business study, service delis, which account for the largest share of food service in supermarkets, are in 66 percent of all supermarkets in the United States, up from 52 percent in 1982. In addition, 50 percent of U.S. supermarkets offer salad and soup bars; 43 percent, hot pizza sections; 42 percent, fresh pasta sections;

⁴A hypermarket is the largest supermarket format, with general merchandise items accounting for up to 40 percent of sales. A superstore is a supermarket distinguished by its greater size and variety of products than conventional supermarkets, including specialty and service departments and a considerable inventory of general merchandise (5).

Table 3. Major foods: Per capita consumption, 1980-1988, in pounds

Item	1980	1981	1982	1983	1984	1985	1986	1987	1988
Red meat	123.4	121.9	116.7	120.3	119.9	120.9	118.3	113.3	115.1
Poultry	42.6	43.9	44.8	45.7	47.0	49.3	51.0	55.2	57.1
Fish	12.8	12.7	12.1	12.9	13.4	14.3	14.8	15.2	15.0
Eggs	34.4	33.5	33.5	33.0	32.9	32.2	31.7	32.0	30.9
Dairy products	543.4	540.9	555.5	572.4	581.3	592.7	590.5	597.8	582.2
Fats and oils	57.2	57.6	58.2	59.9	58.7	64.1	64.1	62.7	62.7
Caloric sweeteners	123.9	124.0	123.1	124.8	127.8	130.4	129.6	132.3	132.7
Flour and cereal products	152.0	152.1	153.9	152.9	153.8	160.1	163.9	170.2	171.8
Fresh fruits	86.9	83.8	83.9	88.8	88.0	85.8	91.8	96.9	94.4
Processed fruits	15.5	14.5	15.1	14.0	14.4	14.4	15.3	15.3	15.4
Fresh vegetables	72.6	71.2	75.0	74.6	79.1	79.2	84.6	89.0	89.8
Vegetables for canning and freezing .	105.0	100.3	98.5	100.3	108.7	104.7	103.4	103.7	100.7
Fresh potatoes	49.0	43.8	44.8	47.9	46.8	44.7	47.6	46.5	52.4
Processed potatoes	25.1	25.6	26.3	26.4	27.1	29.1	30.1	29.7	28.6

Source: Putnam, J., 1990, *Food Consumption, Prices, and Expenditures, 1967-1988*, Statistical Bulletin No. 804, U.S. Department of Agriculture, Economic Research Service.

19 percent, tortillerias; 17 percent, ice cream stands; 14 percent, yogurt machines; and 6 percent, sushi bars. Sit-down eating areas in supermarkets have been steadily increasing, from 7 percent in 1980 to 19 percent in 1988. In addition, many supermarkets offer in-store microwave ovens. The newest innovations are microwavable fast foods, such as breakfast sandwiches, hamburgers and cheeseburgers, potato products, soups, and entrees especially for children. These items compete with fast food chains for the away-from-home food dollar (9).

Shelf-stable foods are items that are vacuum-packed in plastic tubs, trays, or pouches and cooked at very high temperatures. They are prepared without preservatives and can be kept for years without refrigeration or freezing. Increased microwave ownership and new packaging technology have contributed to the growth of shelf-stable foods. Microwavable shelf-stable foods, which can be heated in a microwave in 75 to 90 seconds, accounted for

\$250 million in sales in 1988 and could reach \$696 million by 1993 (9). In addition, consumer concerns about food safety and environmental hazards have increased the sale of organically grown food products (4).

The number of microwavable frozen foods is expected to grow by 25 percent during the next 4 years, and the value of food prepared especially for microwave heating is expected to grow from \$5 billion in 1988 to \$7 billion by 1993. New frozen and shelf-stable microwavable foods have been developed specifically for children. Meals that come packaged in colorful containers and often include activity kits are currently being tested (9).

Catering services are now offered by 40 percent of the Nation's supermarkets. Other customer conveniences in the future will be drive-up windows, separate entrances for the deli and food service areas, and separate cash registers in the deli department (9).

Generic Advertising

Over \$750 million was spent on generic (not brand name) advertising of U.S. agricultural products in 1989. Generic advertising currently includes over 350 programs covering about 80 commodities. Programs are either funded and managed entirely by farmers or tied to USDA regulatory programs. The majority of promotion funds since 1983 were contributed by dairy, beef, and pork farmers. The amount farmers contribute—which is set by legislation—almost doubled in the 1980's. This money is used for product development and research in addition to domestic and overseas market promotions (3).

In-depth studies of two generic programs show that sales of cheese and Florida citrus products have been boosted by advertisements. The effect of advertising on prices depends on how consumers react to the ads and how farmers respond to changes in demand. Some promotions have tried to offset the effects of advertising for non-nutritious

Table 4. Beverages: Per capita consumption, in gallons, 1980-1988

Beverage	1980	1981	1982	1983	1984	1985	1986	1987	1988
Whole milk	17.0	16.2	15.5	15.1	14.7	14.3	13.5	12.9	12.3
Lowfat milk	10.6	10.8	10.9	11.1	11.6	12.3	13.0	13.2	13.7
Tea	7.3	7.2	6.9	6.9	7.1	7.1	7.1	6.9	6.9
Coffee	26.7	26.0	25.9	26.3	26.7	27.3	27.4	26.3	24.3
Soft drinks	27.1	27.1	26.9	27.4	28.4	30.4	31.9	30.5	31.7
Fruit juice and drinks	NA	NA	NA	8.6	8.7	9.3	9.5	10.0	10.4
Alcohol: ¹									
Beer	36.6	36.8	36.2	35.6	35.0	34.4	34.7	34.4	34.1
Wine	3.2	3.3	3.3	3.3	3.4	3.5	3.5	3.4	3.2
Distilled spirits	3.0	2.9	2.8	2.7	2.6	2.5	2.4	2.3	2.2

¹Adult population, 21 years and over.

NA = Not available.

Source: Putnam, J., 1990, *Food Consumption, Prices, and Expenditures, 1967-1988*, Statistical Bulletin No. 804, U.S. Department of Agriculture, Economic Research Service.

foods, for example, by urging consumers to substitute milk for soft drinks or grapes for candy. Other promotions have tried to correct misconceptions about a food's nutritional value, introduce a variety of foods, and offer serving suggestions, recipe ideas, and nutritional information (3).

Restaurant Patronage

Recent economic factors that influence eating-place sales include a drop in consumer confidence and a sluggish growth in real personal disposable income. These factors result in a cash-tight consumer who is cautious and value conscious. As a result, fast food is likely to account for the largest growth in eating-place sales in 1991. Pastas, pizzas, and bistro (simple, European style) fare are examples of restaurant items gaining in popularity. There has also been growth in sales of sandwiches, appetizers that can serve as a meal, and casual meal combinations (4).

The family composition of a household affects restaurant spending. Data from the 1989 Consumer Expenditure Survey indicate that husband-wife households with children spent \$596 per person per

year compared with \$989 per person per year for husband-wife households with no children. Per capita expenditures on food away from home increased as the age of the child increased. Husband-wife households with an oldest child under age 6 spent \$503 per person per year, compared with \$583 per person for husband-wife households with an oldest child between 6 and 17 years old, and \$687 per person for husband-wife households with an oldest child 18 years or older (16).

The proportion of families with more than one earner began to increase sharply after World War II, from 39 percent in 1950 to 57 percent in 1989 (1). Rising family incomes increase expenditures on more expensive food items as consumers demand more convenience and quality. This lifestyle trend has benefited restaurateurs because the consumer is willing to pay for conveniences such as take-out orders and home delivery in exchange for time. The convenience of restaurant meals as an alternative to cooking relieves the stress of having to prepare meals in a hurry (4).

Food service operators are also responding to consumers' demands for healthier, lower fat foods. A 1990 National Restaurant Association survey of fast food and family restaurant chains found that almost 90 percent use only all-vegetable oil and/or shortening for frying, and the majority offer decaffeinated coffee, entree salads and/or salad bars, skinless poultry, reduced or low-calorie salad dressing, lowfat milk, fruit juices, and margarine (4).

Because of a variety of social and legislative pressures, alcohol sales growth at eating places is expected to remain sluggish in 1991. Another reason for a cutback on alcohol purchases may be the Federal alcohol excise tax on beer, wine, and distilled spirits that went into effect in January 1991. The sale of alcohol in bars and taverns is expected to decrease in 1991; tax increases on alcohol, at all levels of government, have caused prices of alcoholic beverages to rise faster than other prices on the menu (4).

Food Assistance Programs

In 1989 over 16 percent of the U.S. population received food assistance, including food stamps, vouchers, food packages, and cash. Federal food assistance totaled \$23.4 billion in fiscal 1990, up from \$1.1 billion in 1969 when USDA established the Food and Nutrition Service to administer these programs (7).

Family Nutrition Programs

The largest of the family nutrition programs is the Food Stamp Program, which served an average of 22.5 million people per month in the second quarter of fiscal 1991, at a cost of \$4.6 billion. Under the program, which was started in 1961, coupons are issued monthly to eligible low-income households to be redeemed for food at retail stores (7). Average monthly food stamp benefits, per person, were \$63.96 in the second quarter of fiscal 1991. These benefits, which are adjusted annually, are based on the cost of the Thrifty Food Plan (TFP) for a family of four (8).

The U.S. Government also supports food assistance programs targeted for special localities such as Puerto Rico and the Marshall Islands. Puerto Rico's Food Stamp Program was replaced by the Nutrition Assistance Program in 1982 (7). Under this block grant program, Puerto Rico received \$937 million in fiscal 1990 (8).

The Food Distribution Program on Indian Reservations and the Marshall Islands operates as an alternative to the Food Stamp Program. Under the program, recipients receive food packages, including canned meats, fruits and vegetables, and dairy products (7). Average participation was 138,000 per month in 1990, at a cost of \$60 million for food administration funds (8).

Child Nutrition Programs

USDA oversees five child nutrition programs in cooperation with State and local governments. The cost of these programs to the Federal Government, including the value of donated commodities, was \$5.3 billion in fiscal 1990 (7). Participation in the National School Lunch Program averaged 24.1 million children each school day in fiscal 1990. Eligibility for free and reduced-price meals, which provide approximately one-third of the recommended dietary allowances for school-age children, is determined by household size and income. Schools receive commodities and cash payments for every lunch served. In school year 1990 they received 13.25 cents worth of commodities per meal, up from 12.25 cents in 1989 (8).

In 1990 over 4.0 million children participated in the School Breakfast Program, 1.6 million more than when the program was permanently authorized in 1974. Federal costs for this program were \$594.2 million in fiscal 1990 (7).

The Child Care Food Program provides commodity assistance and cash to nonprofit child care centers and family day care homes. Daily attendance at facilities offering this program averaged 1.4 million in 1989, at 141,000 sites. Participation in this program is likely to increase as the need for child care grows. The recently introduced adult care component of this program increased from 833,300 adult meals served in the second quarter of fiscal 1989 to 1.9 million in the same period in 1990 (7).

The Special Milk and Summer Food Service Programs are smaller programs. Federal costs for the Special Milk Program, which provides half-pints of milk at schools, child care institutions, and summer camps, have averaged between \$15 and \$19 million annually since 1982, while expenditures for the Summer Food Service Program were \$150.4 million in 1989 (7).

WIC and the Commodity Supplemental Food Program

WIC (Special Supplemental Food Program for Women, Infants, and Children) is designed to improve the nutritional status of low-income, nutritionally at-risk women, infants, and children up to age 5. Participants receive vouchers that can be exchanged for monthly allotments of foods, such as infant formula, eggs, fruit juice, milk, cheese, and cereal. Begun in 1974, WIC also provides nutrition education and referrals to health services. It now includes special provisions under the Hunger Prevention Act of 1988 to reach the homeless. As a nonentitlement program, funding for WIC is allocated on the basis of a formula rather than solely on participation. Total participation averaged 4.5 million in fiscal 1990, an increase of 23.6 percent from fiscal 1980 (7).

The Commodity Supplemental Food Program (CSFP), established in 1969, initially targeted a population similar to that of WIC (7). However, elderly participants now constitute 39 percent of the program. The CSFP provides supplemental food assistance by purchasing commodities and shipping them to State and local agencies for distribution to participants. Costs of the program were \$68.7 million during fiscal 1990. Total participation averaged 273,000 in fiscal 1990 (8).

Food Distribution Programs

Aside from the child nutrition programs, distribution programs are The Emergency Food Assistance Program (TEFAP), the Nutrition Program for the Elderly (NPE), and the Commodity Distribution to Charitable Institutions Program (CDCIP). These programs have historically been associated with commodities obtained through farm price support and surplus removal programs. Spending for these programs was \$621.3 million

in fiscal 1990, down from a peak of \$1.5 billion in fiscal 1984 because some Government surpluses, primarily dairy products, were depleted. Commodities are purchased for distribution to soup kitchens and food banks (see box) under the Mickey Leland Memorial Domestic Hunger Relief Act of 1991.

Under the NPE, USDA provides food and funds to the U.S. Department of Health and Human Services (HHS), which administers programs to provide meals for the elderly either at a central location or delivered to their homes.

The CDCIP provides surplus commodities to eligible charitable institutions, such as orphanages, summer camps, and nursing homes, which are not covered by other USDA programs (7).

Proposed Program Reforms

Current reform proposals include: (1) broadening WIC program coverage over time to all eligible persons and (2) requiring that non-AFDC families with absent parents cooperate with the Child Support Enforcement Agency as a condition of eligibility for the parent.

Recent Legislation

Public Law 101-445, the National Nutrition Monitoring and Related Research Act of 1990, requires the Secretary of Agriculture and the Secretary of Health and Human Services to undertake a 10-year plan to strengthen national nutrition monitoring. The plan will assess the dietary and nutritional status of the U.S. population, support and develop nutrition monitoring, promote national nutrition education, and establish dietary guidelines. The plan will provide a scientific basis for the maintenance and improvement of the nutritional status of the population and the nutritional content of the food consumed in the United States.

Under The Emergency Food Assistance Program (TEFAP), **surplus** butter, cornmeal, and flour are distributed. In addition to the surplus commodities, \$120 million will have been spent in fiscal 1991 for the purchase and distribution of additional commodities. The commodities that are being purchased for fiscal 1991 are cheese, two types of canned beans, canned pork or beef, pears, applesauce, rice, and raisins.

The Nutrition Program for the Elderly (NPE) provides nutritious meals for older Americans either in congregate or home-delivery settings. Depending on availability in each community, Area Agencies on Aging provide: nutrition services in schools, community centers, churches, public housing, and other places located within walking distance of the homes of the majority of local elderly people; nutritious, well-balanced hot or cold meals at least once a day; transportation to and from the sites for those who need it; and home-delivered meals at least once a day to older people who are homebound.

Under the Commodity Distribution to Charitable Institutions Program (CDCIP), organizations throughout the country use USDA-donated food to help provide **prepared meals** to needy people. These institutions range from churches operating soup kitchens for the homeless and destitute to orphanages and homes for the aged. In addition to the commodity assistance that has traditionally been provided to charitable institutions, in fiscal 1991, \$32 million will have been spent to purchase and process additional commodities for distribution to soup kitchens that prepare meals for the homeless. The foods USDA donates to charitable institutions vary from time to time. Generally, they include cereals and grains, peanut and oil products, and butter. The commodities that USDA purchased in fiscal 1991 for distribution to soup kitchens include canned meats, fruits, and vegetables.

The Secretaries will assess and report on the dietary and nutritional status of the population and trends. At the discretion of the Secretaries, the status and trends related to preschool and school-age children, pregnant and lactating women, the elderly, low-income populations, Blacks, Hispanics, and other groups will be reported separately. The plan will maintain and coordinate the National Health and Nutrition Examination Survey (NHANES) and the Nationwide Food and Consumption Survey (NFCS). The President will establish a National Nutrition Monitoring Advisory Council, consisting of nine voting members, to carry out the purposes of this act and to provide scientific and technical advice.

At least every 5 years the Secretaries will publish a report entitled "Dietary Guidelines for Americans" containing nutritional and dietary information and guidelines for the general public.

The report will be promoted by each Federal agency in carrying out any Federal food, nutrition, or health program. Also, the Secretary of HHS will submit a report describing the appropriate Federal role in ensuring that students enrolled in U.S. medical schools and physicians practicing in the United States have access to adequate training in the field of nutrition and its relationship to human health. The bill was signed into law on October 22, 1990 (13).

Public Law 101-535, the Nutrition Labeling and Education Act of 1990, was designed to lessen consumer confusion regarding products promoted by some food manufacturers. It will require, for the first time, a uniform system of labeling food products. Under the bill, most food product labels must state the following nutrition information: serving size or the common household unit of measure that expresses the serving size of the food; the number of servings or other units

of measure per container; the total number of calories and the calories derived from the total fat in each serving size or other unit of measure; and the amount of total fat, saturated fat, cholesterol, sodium, total carbohydrates, complex carbohydrates, sugars, dietary fiber, and total protein contained in each serving size or other unit of measure.


The Secretary of HHS is required to carry out activities that educate consumers about the availability of nutrition information in the labeling of food and the importance of that information in maintaining healthy dietary practices. The bill requires health claims about foods to meet HHS standards and would disallow misleading health claims. For example, a claim may not state the absence of a nutrient, such as cholesterol, unless the nutrient is usually present in the food.

Within 12 months of the date of the enactment of Public Law 101-535, the Secretary of HHS will issue proposed regulations to implement section 403(r) of the Federal Food, Drug, and Cosmetic Act, defining the following terms used to characterize the level of any nutrient in food: free, low, light or lite, reduced, less, and high. If a food purports to be a beverage containing vegetable or fruit juice, a statement of the total percentage of such fruit or vegetable juice contained in the food is required on the information panel with appropriate prominence.

The Secretary of HHS will determine whether claims linking the following nutrients and diseases meet HHS requirements: calcium and osteoporosis, dietary fiber and cancer, lipids and cardiovascular disease, lipids and cancer, sodium and hypertension, and dietary fiber and cardiovascular disease. Similarly, the Secretary will establish the procedure and standard concerning the validity of claims made with respect to a dietary supplement of vitamins,

minerals, herbs, or other similar nutritional substances and will determine whether claims linking the following nutrients and diseases are valid: folic acid and neural tube defects, antioxidant vitamins and cancer, zinc and immune function in the elderly, and omega-3 fatty acids and heart disease. The bill was signed into law on November 8, 1990 (14).

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Volunteers in the United States

Millions of Americans perform volunteer work for a variety of organizations and institutions, such as schools, hospitals, churches, and civic groups. Data from supplementary questions included in the May 1989 Current Population Survey¹ were used to answer the following questions: Who are these volunteers? For whom do they perform volunteer work? How much time do they spend at these unpaid activities?

Who Volunteers?

About 38 million Americans did volunteer work without pay for an organization or institution² at some time during the year ended in May 1989. This represented about 20 percent of the civilian noninstitutional population age 16 and over. The likelihood of volunteering varies by several demographic and economic factors, such as sex, age, race, marital status, educational attainment, employment status, and income (see table).

¹The Current Population Survey is a monthly survey conducted by the Bureau of the Census for the Bureau of Labor Statistics. The sample includes about 60,000 households that are selected to represent the civilian noninstitutional population, 16 years old and older, in the 50 States and the District of Columbia.

²Excluded were persons whose unpaid work was done in connection with a family business or farm.

During the year that ended in May 1989, 22 percent of women and 19 percent of men did some volunteer work. Women were somewhat more likely than men to be volunteers, partly because of their employment and family status. Women account for a larger proportion of part-time workers or persons not in the labor force. Also, women who are mothers have many opportunities to volunteer through their children's school, sports, and religious activities.

People in the 35- to 44-year-old age group were more likely than those younger or older to have done volunteer work. Higher percentages of married men and women performed volunteer work, compared with those who were single, divorced, or widowed.

Adults with a college degree were much more likely to do volunteer work than those with fewer years of schooling. Among college graduates age 25 years or older, 38 percent participated in unpaid volunteer work, compared with 19 percent of high school graduates and 8 percent of high school dropouts.

Employed persons were more likely to be volunteers than those who did not work. Age is a key reason why nearly 70 percent of volunteers held paying jobs. Employed people tended to be in those age groups in which the volunteer rate was highest (25 to 54 years old), whereas those who were unemployed or not in the labor force were mostly younger or older. Among employed men, full-time workers were more likely to be volunteers,

whereas among employed women, part-time workers were more likely to do volunteer work.

In general, people with higher income are more likely to perform volunteer work. The link between volunteering and income may reflect the relationship between education and volunteering: people who have college degrees tend to have higher incomes than those with fewer years of schooling. Also, participation in volunteer activities can require some out-of-pocket expenses for such things as transportation, clothing, or incidentals. The volunteer rate for persons whose 1988 family (or individual) income was over \$50,000 was about three times that for persons with income under \$10,000.

Blacks and Hispanics were less likely than Whites to serve as volunteers. This was partly because they tended to be more concentrated in groups with relatively low volunteer rates. Compared with Whites, they were younger, less educated, and had a higher unemployment rate. Blacks and Hispanics also tend to have lower incomes than Whites.

For Whom, How Long, and How Often?

Volunteers were more likely to work for "church or other religious organizations" than for any other kind of organization. During the year that ended in May 1989, 36 percent of male and 39 percent of female volunteers reported that working for churches was their main volunteer activity. Among

People who performed unpaid volunteer work at some time during the year ended May 1989, by sex and selected characteristics

Characteristic	Volunteers as percent of population		
	Both sexes	Men	Women
Total	20.4	18.8	21.9
Age (years):			
16 to 24	12.3	11.4	13.1
25 to 34	20.2	17.4	23.0
35 to 44	28.9	26.8	30.9
45 to 54	23.0	21.8	24.1
55 to 64	20.8	19.8	21.8
65 and over	16.9	15.8	17.7
Race and Hispanic origin:			
White	21.9	20.0	23.6
Black	11.9	11.5	12.3
Hispanic origin	9.4	8.6	10.1
Marital status:			
Never married	13.7	12.4	15.3
Married, spouse present	24.8	22.8	26.9
Married, spouse absent	13.2	12.1	14.0
Divorced	17.3	15.3	18.6
Widowed	15.3	11.9	16.0
Years of school completed by people 25 years old and over:			
0 to 11	8.3	7.8	8.8
12 only	18.8	16.0	20.9
13 to 15	28.1	24.0	31.6
16 or more	38.4	36.0	41.4
Employment status:			
In labor force	22.1	20.9	23.6
Employed	22.6	21.4	24.0
Full time	21.9	21.8	22.0
Part time	26.0	18.0	29.9
Unemployed	13.8	11.1	16.8
Not in labor force	17.1	12.2	19.6
Income: ¹			
Under \$10,000	9.2	7.5	10.0
\$10,000 to \$29,999	15.6	12.9	18.0
\$30,000 to \$49,999	23.4	20.9	26.0
\$50,000 or more	27.0	25.1	29.1

¹For year ended March 1989.

Source: Hayghe, H.V., 1991, Volunteers in the U.S.: Who donates the time?, *Monthly Labor Review* 114(2):17-23, U.S. Department of Commerce, Bureau of Labor Statistics.

men, the second and third ranking choices were "civic or political organizations" and "sports or recreational organizations." For women, "schools or other educational institutions" and "hospitals or other health organizations" were the second and third choices.

During the survey year, 60 percent of volunteers spent fewer than 5 hours a week at their volunteer activity, 20 percent worked 5 to 9 hours, 17 percent worked 10 to 34 hours, and less than 4 percent did volunteer work for 35 hours a week or more. Volunteers who were Black, Hispanic, or age 65 and over tended to spend more hours a week volunteering than other volunteers. Also, high school dropouts and unmarried people, though volunteering less often than college graduates or married people, tended to do so for more hours per week. Most volunteer workers, 56 percent, were active in fewer than half the weeks of the year; however, 28 percent did some volunteer work throughout the entire year.

In 1965 and 1974, data on volunteerism were collected via the Current Population Survey. Differences in questions, concepts, and coverage permit very limited comparisons with the 1989 survey. Overall, however, the proportion of persons reporting volunteer work has decreased slightly since 1974, reflecting an increase in the proportion of the population composed of groups with relatively low volunteer rates—Blacks, Hispanics, and unmarried people.

Source: Hayghe, H.V., 1991, Volunteers in the U.S.: Who donates the time?, *Monthly Labor Review* 114(2):17-23, U.S. Department of Commerce, Bureau of Labor Statistics.

Home Ownership Trends in the 1980's

The U.S. Department of Commerce used data from the Current Population Survey/Housing Vacancy Survey (CPS/HVS) to determine geographic and demographic trends in home ownership during the 1980's. In 1989 the home ownership rate for the United States was 63.9 percent, significantly lower than the 65.6 percent rate recorded in 1980. This was the first decade-long decline in home ownership rates since the 1930's. Contributing factors include (1) decreases in home ownership by families, (2) decreases in home ownership by householders under 60 years of age, and (3) increases in the nonfamily household population, a group that historically has had lower home ownership rates.

Geographic Trends

The Northeast had a higher home ownership rate in 1989 (62.0 percent) than in 1980 (60.8 percent). Four of ten States with higher home ownership rates¹ in 1989 than in 1984² were in this region. In other regions home ownership rates decreased. Seven of sixteen³ States reporting significantly lower home ownership rates were in the Midwest; consequently, home ownership for the region decreased (from 69.8 percent

¹States with significantly higher home ownership rates: Hawaii, New Jersey, New York, Ohio, Pennsylvania, South Carolina, Vermont, Virginia, West Virginia, and Wisconsin.

²State home ownership data became available in 1984 from the CPS/HVS. Metropolitan Statistical Areas were redefined in 1984 and these definitions were included in the 1986 CPS/HVS. Home ownership data by age of householder became available in 1982.

³States with significantly lower home ownership rates: Alabama, Colorado, Florida, Indiana, Kansas, Kentucky, Louisiana, Maryland, Massachusetts, Minnesota, Missouri, Nebraska, Nevada, New Mexico, North Dakota, and South Dakota.

in 1980 to 67.7 percent in 1989). In the South home ownership dropped from 68.7 percent (1980) to 65.9 percent (1989) and in the West, from 60.0 percent in 1980 to 57.8 percent in 1989. Only Hawaii, in the Western region, reported a significant increase in home ownership between 1984 and 1989.

National home ownership rates in Metropolitan Statistical Areas (MSA's) increased very little between 1986 (61.2 percent) and 1989 (61.3 percent). Fourteen of the 61 largest MSA's had higher home ownership rates in 1989 than in 1986, whereas 9 MSA's reported lower home ownership rates. MSA's recording a loss of at least 6 percentage points in home ownership rates were Nashville, TN; St. Louis, MO; and Fort Lauderdale/Hollywood/Pompano Beach, FL. MSA's with home ownership rates that had risen by 6 or more percentage points were San Jose, CA; Norfolk/Virginia Beach/Newport News, VA; and Milwaukee, WI.

Figure 1. Home ownership rates for the United States, by age of householder: 1982 and 1989

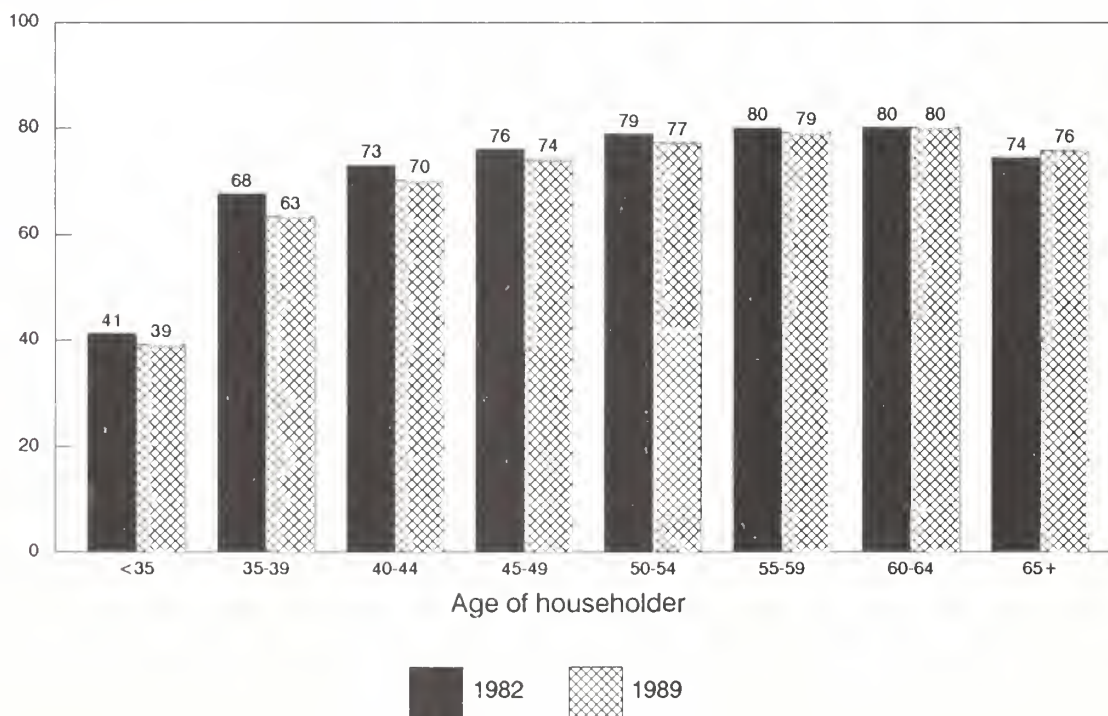
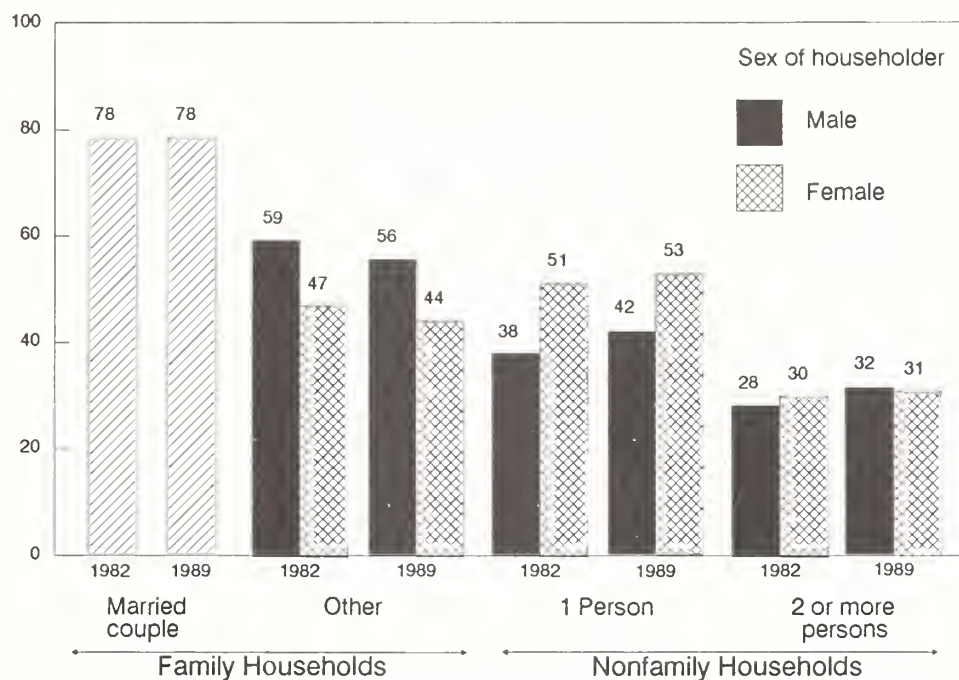


Figure 2. Home ownership rates for the United States, by family status: 1982 and 1989



Married-couple families include a husband and wife who are members of the same household who may or may not have children living with them.

Other families consist of a male or female householder (reference person) who has at least one other relative in the household.

Nonfamily households include persons maintaining a household while living alone (one-person households) or with nonrelatives (two-or-more-person households).

Householder refers to the person (or one of the persons) in whose name the housing unit is owned or rented or, if there is no such person, any adult member, excluding roomers, boarders, or paid employees. If the house is jointly owned by a married couple, either may be listed as the reference person.

Demographic Trends

Age. As young householders get older, their tenure status gradually shifts from predominately renters to predominately homeowners. Younger households continued to have lower home ownership rates throughout the decade. Home ownership rates for householders in all age groups less than 60 years old were significantly lower in 1989 than in 1982 (figure 1). For householders over 60 years old, the home ownership rate was significantly higher in 1989 than in 1982.

Family Status. A smaller proportion of nonfamily households own homes than do family households. Between 1982 and 1989, the increase in nonfamily households exceeded that in family households, contributing to the lower overall home ownership rate. Although most married-couple households owned their homes (78.3 percent in 1989, not significantly different from 1982), home ownership declined for non-married-couple family households

during this period (figure 2). For male householders in other families, home ownership dropped from 59.3 (1982) to 55.7 percent (1989). Corresponding figures for female householders in other families were 47.1 percent (1982) and 44.1 percent (1989). Females living alone have a higher home ownership rate than males living alone. Between 1982 and 1989 home ownership for both male and female householders living alone increased, but the rate for males increased more. Among householders living with one or more nonrelatives, the home ownership rate for males was higher in 1989 than in 1982. Overall rate for their female counterparts was unchanged; the rate for those under 50 years old increased as the rate for those over age 50 decreased.

Source: U.S. Department of Commerce, Bureau of the Census, 1990, *Homeownership Trends in the 1980's*, Series H-121, No. 2.

The Effects of Food Stamps on Food Consumption: A Review of the Literature

The Food Stamp Program (FSP) is one of the Nation's largest social welfare programs, providing benefits to as many as 20 million Americans each month. This report is the sixth in a series, *Current Perspectives on Food Stamp Participation*, sponsored by the Food and Nutrition Service, U.S. Department of Agriculture. An overview of 20 years of research findings on the effects of food stamps on recipients' food consumption and diet quality is presented.

The effects of food stamps on (1) the money value of food used by households, (2) the availability of nutrients in the household from the home food supply, and (3) the intake of nutrients by individuals are included. The purpose of the report is to help the user understand the consensus findings, or the range of findings from these many diverse studies by systematically summarizing the findings into one document. Data bases and estimation methods used in food stamp studies are also described.

Findings that relate to the differences between FSP recipients and low-income nonrecipients include:

- FSP participating households spend a larger portion of their total expenditures on all food items than do nonrecipients.
- Nonparticipants spend about twice as much per household member on food bought and used away from home.

- Food used at home by FSP recipients has a greater money value per person and provides more nutrients per dollar than does food used by nonrecipients.
- Recipients spend a larger percentage of the average home food dollar on meat, poultry, and fish than do nonrecipients, whereas nonrecipients spend a larger percentage on grain products and on fruits and vegetables.
- FSP recipients are far more likely to shop for food on a monthly basis, whereas most nonrecipients shop for food on a weekly basis.
- More recipients than nonrecipients (24 percent vs. 8 percent) report sometimes or often not having adequate supplies of food.

Findings from 17 studies confirm that food stamps have a positive effect on *household food expenditures*. A typical recipient household would respond to a \$1 increase in the value of food stamp benefits by increasing its food expenditure by between \$0.17 and \$0.47. An additional dollar of regular income would prompt an average low-income household to increase its food expenditure by \$0.05 to \$0.10. Also, the results of the 17 studies reviewed strongly suggest that coupons would be more effective than cash food assistance at increasing food expenditures.

Eight studies estimate the effects of food stamp participation and/or the size of the food stamp benefit on the *availability of nutrients* from the food used by a household from its home food supply. The studies show that food stamp participation and/or the size of the food stamp benefit (as well as ordinary cash income) have positive effects on the availability of most nutrients studied. Estimates of the effects on

nutrient availability are roughly two to seven times greater for a dollar's worth of food coupons than for a dollar of cash income.

The average availability of each of 12 selected nutrients relative to the Recommended Dietary Allowances (RDA's) is higher for recipients than for nonrecipients. The Joint Nutrition Monitoring Evaluation Committee has identified the consumption of three of these nutrients—Vitamin C, calcium, and iron—as warranting priority status in public health monitoring. Food stamps have significantly increased their consumption. The increases were 24 percent for calcium, 35 percent for Vitamin C, 42 percent for iron, and between 19 to 42 percent for eight of the other nutrients measured.

It would be expected that a measure of *nutrient intake* would show weaker effects than would a measure of nutrient availability because nutrient intake encompasses dietary behavior (for example, the consumption of restaurant meals) that the FSP is not designed to measure directly. Findings from eight studies of the effects of food stamps on the intake of nutrients by individuals confirm that the effects are relatively weak. Furthermore, because diet is only one of many factors that determine an individual's nutritional status, findings from these studies cannot show definitively whether the FSP is successful at achieving its nutritional objectives.

Source: Fraker, T.M., 1990, *The Effects of Food Stamps on Food Consumption: A Review of the Literature*, U.S. Department of Agriculture, Food and Nutrition Service.

Computer Use in the United States: 1989

Nearly 10 years after their introduction, small personal computers are an established part of many lives—at work, at school, and at home. In 1989, close to one-third of the population reported using a computer in some way, and 15 percent of all households owned a computer, compared with 8 percent in 1984.

The level of use and ownership of computers was first examined in the October 1984 supplement to the Current Population Survey (CPS) conducted by the Bureau of the Census. A second survey on computer ownership and usage was undertaken in October 1989, under the sponsorship of the National Center for Education Statistics. The 1989 sample included about 56,100 housing units that were selected from the 1980 decennial census files.

Access and Use by Children

In 1989, 46 percent of children ages 3 to 17 used a computer at home or at school, compared with only 30 percent in 1984. Computer usage rates were 14 percent for children ages 3 to 5, 42 percent for 6-year-olds, and 45 percent for those ages 7 to 17.

White children were more likely to have a computer at home (27 percent) than Black children (11 percent); however, White children were not significantly different from children of other races (28 percent) in their level of access. Regional differences first noted in 1984 continued to exist; 30 percent of children in the Northeast had a computer at home, as opposed to 21 percent of the children in the South.

Both family income level and education level of the household head had a strong relationship to the presence of a computer in the

Levels of access and use of computers by age, 1984 and 1989

Access and use	1984	1989
	Percent	
Households with computer	8.2	15.0
3 to 17 years:		
Access to a home computer	15.3	24.2
Use home computer ¹	74.2	71.1
Use computer at school ²	28.0	46.0
Use computer at home or school	30.2	46.0
18 years and over:		
Access to a home computer	9.1	17.3
Use home computer ¹	53.3	58.4
Use computer at school ²	30.8	43.6
Use computer at work ³	24.6	36.8
Use computer at home, school, or work	18.3	28.1

¹Of persons with a computer at home.

²Of persons enrolled.

³Of persons with a job.

Source: Kominski, R., 1991, *Computer Use in the United States: 1989*, Current Population Reports, Special Studies, Series P-23, No. 171, U.S. Department of Commerce, Bureau of the Census

home. Sixty-three percent of those children living in homes with incomes above \$75,000 had access to a computer, and nearly half (49 percent) of the children in households where the householder had 4 or more years of college had a computer available to them.

For most children, exposure to a computer occurred in the classroom, where usage rose from 28 percent in 1984 to 46 percent in 1989 (see table). Use of a computer at school was related to both family income and the education of the family householder in both 1984 and 1989, indicating a possible indirect effect of family socioeconomic status on computer use through the type of schools people choose for their children or the schools that are available.

Private schools had consistently higher levels of computer use at home (28 percent), in school (50 percent), and in both places (18 percent). Public schools had lower usage rates at home (17 percent) and overall (11 percent), but were similar for school use (46 percent).

Public schools, therefore, seem to be keeping up with private schools in providing computer resources to students.

As in 1984, the most frequently identified use of computers by children was for games (84 percent in 1989). About 40 percent reported using the computer for homework, 25 percent for word processing, and 12 percent for graphics. In 1984, 71 percent of children reported that they were "learning to use" the computer. This dropped significantly in 1989 to 25 percent.

Access and Use by Adults

Twenty-eight percent of the adult population used a computer at home, at work, or at school in 1989, up from 18 percent in 1984 (see table). Within the group of adults who had a computer in their home (17 percent), persons ages 35 to 44 were most likely to have a home computer (27 percent), reflecting the increased likelihood of having children at home. Family income and the education of the individual

were closely associated with the probability of having a computer at home. A computer at home was reported by 47 percent of persons in households with annual incomes of \$75,000, as well as 34 percent of those persons with 4 or more years of college.

Not all adults who had a computer in their home actually used it. Slightly over half (58 percent) of adults with a home computer reported using it. Some of the "non-use" of home computers by adults is because computers are often bought for children. Computer usage rates in 1984 were similar for all races. In 1989, however, usage rates were higher for Whites (59 percent) than for Blacks (51 percent), and Hispanics (54 percent) had lower rates of use than persons who were not Hispanic (59 percent).

As with access, use tends to increase with education. By income, however, use was just as likely for persons in the lowest family income category (59 percent of those with access) as it was for persons in the highest (60 percent). Home use rates were very high among persons who used a computer at work (75 percent), had 4 or more years of college (71 percent), or held a managerial or professional position (71 percent).

The most frequent use of home computers by adults was for word-processing, at 62 percent, a substantial increase from 1984's reported usage of 33 percent. Other commonly reported uses included games (44 percent), household record-keeping (36 percent), work at home or connect to a computer at work (12 percent), and to run a home-based business (11 percent).

Use of a home computer for work purposes was related to an individual's educational level and type of occupation. Among persons with 4 or more years of college, 18 percent used a home computer for work. Usage rates between 18 percent and 32 percent were reported among those individuals in

managerial and professional occupations, employed in manufacturing, in real estate, or in agricultural industries.

The most likely place for an adult to encounter a computer is at work. Since 1984 there has been a 50-percent increase in the proportion of adults who used a computer in the workplace (from 25 percent to 37 percent). The highest rates of computer use at work were found in managerial and professional positions (56 percent) and technical and administrative positions (55 percent).

Overall, women have a higher rate of computer use at work than men. Women are more likely than men to work in technical, sales, and administrative support occupations, which include sales clerks, secretaries, and administrative clerical workers (44 percent of all employed women, compared with 20 percent of all working men).

The most frequently mentioned use by all workers was word processing, at 14 percent. Other primary uses were for bookkeeping, inventory control, spreadsheets, communications, and the more traditional applications, such as programming and analysis. The industry with the overall highest level of computer usage was that of finance, insurance, and real estate, where 67 percent of all workers said they used a computer.

These data indicate a general pattern of increase for virtually all segments of the population, at home, school, and work. The leading edge of computer users falls into two groups: people who use computers on a daily basis in their jobs and people who are trying to better prepare their children for the work force of tomorrow.

Source: Kominski, R., 1991, *Computer Use in the United States, 1989*, Current Population Reports, Special Studies, Series P-23, No. 171, U.S. Department of Commerce, Bureau of the Census.

Pawnshops: The Consumer's Lender of Last Resort

Pawnshops are an important source of credit for many low-income consumers, especially those excluded from mainstream credit markets. Pawnshops supply only about one-tenth of 1 percent of total U.S. consumer credit. However, in 1988, there were approximately 6,900 pawnshops in the United States (about one pawnshop for every two commercial banks) that made about 35 million loans.

Trends and Regulations

The number of pawnshops and the number of pawnshops per capita have increased since the beginning of the century. Over time the industry has shifted from a concentration in older major urban areas, primarily in the Northeast, to Southern and Central Mountain States. In the 1980's, the pawnbroking industry grew in six of the seven States for which there are time series data; growth was extremely strong in Oklahoma and Texas.

Pawnshop regulations vary from State to State, but generally follow a similar pattern. When a customer pawns an item, terms of the loan contract must be specified on a pawn ticket. The customer retains a copy of the ticket that states the customer's name and address, type of identification provided by the customer, a description of the pledged item with applicable serial numbers, amount lent, maturity date, interest date, and amount that must be paid to redeem the good. This last requirement ensures the customer understands the consequences of the interest charge.

Most States regulate pawnshop interest rates and other charges, such as storage or insurance fees. Including these charges, effective interest rate ceilings vary across States from 1.5 percent a month to 25 percent a month. Compounding is not allowed. A few States impose

Characteristics of pawnshop loans

	Indiana	New Jersey	Oklahoma	Oregon	Pennsylvania
Default rate, number of loans	20.6%	NA	22.2%	13.9%	NA
Default rate, value of loans	13.8%	NA	19.6%	9.3%	NA
Legal interest rate ceiling (monthly)	3.0%	3.0%	20.0%	3.9%	0.5%
Implicit APR on 2-month \$51 loan (includes storage and other fees)	71.3%	36.0%	240.0%	94.8%	36.0%
Average loan size	\$43.11	NA	\$41.00	\$61.31	NA
Interest charge on 2-month \$51 loan	\$3.06	\$3.06	\$20.40	\$3.06	\$0.51
Permissible storage and insurance fees (for item left on pledge 2 months)	\$3.00	None	None	\$5.00	\$2.55

NA = Not available.

Source: State regulatory agencies, 1987 and 1988.

no limits, and the legal limits are widely ignored in some other States. In most States, the broker has the right to charge 1 month's interest if a pledge is redeemed in less than 1 month.

If a customer defaults, the collateral becomes the property of the pawnshop after the loan is overdue by a specific amount of time, commonly 1 to 3 months. Most States require the broker to notify the owner of the pledge by mail that he or she will lose the right to the property unless it is redeemed within the stipulated grace period. In case of default, some States require the collateral be sold at public auction.

Characteristics of Pawnshop Lending

Most pawnshop loans are for relatively small amounts. For example, in Indiana, Oklahoma, and Oregon, average loan sizes range from \$40 to \$60 (see table). In most States, pawnbrokers make loans with 1-month or 2-month maturities. It is not uncommon for customers to renew these loans by paying the interest on the loan at the end of the month. The typical pledge, however, is redeemed in 2 to 3 months.

Default rates on pawnshop loans are quite high, ranging from 14 percent to 22 percent of the number of loans. As a percentage of the value of loans, default rates are somewhat

less, suggesting that default rates are higher on smaller loans.

To prevent a loss in case of default, a broker lends a customer a percentage of the value the broker believes the collateral would bring in a sale. The loan-to-collateral ratio varies over time and across pawnshops, but typically the amount loaned is 50 to 60 percent of the resale value of the collateral. Commonly pawned items include jewelry, electronic and photographic equipment, musical instruments, and firearms.

Another feature of pawnshop credit is its high cost. Each of the States listed in the table imposes a ceiling on pawnshop interest rates. The ceiling interest rates in these States for an average size loan range from 0.5 percent per month in Pennsylvania to 20 percent per month in Oklahoma. In addition, several of the States allow storage and insurance fees, which raise the effective price of the loan. For each State, the dollar outlay for a 2-month \$51 loan plus applicable fees is shown. Effective annual percentage rates (APR's) range from 36 percent in New Jersey and Pennsylvania to 240 percent in Oklahoma. Such high rates are not uncommon. In more than half of the States, pawnshops levy effective annual percentage rates of 120 percent or more on average-size loans.

Growth in Pawnbroking

Before 1980, service fees and minimum-balance requirements on checking and savings accounts either did not exist or were much lower than they are today. After the enactment of the Depository Institutions Deregulation and Monetary Control Act of 1980, banks moved toward pricing services to cover costs, making it more expensive for depositors to maintain small-balance accounts. Banks also closed many unprofitable branches that were located in low-income neighborhoods.

From 1977 to 1983 the percentage of low-income families that did not maintain bank accounts increased. Of the families in the lowest income quintile, 28 percent did not maintain any depository accounts in 1977. By 1983, 36 percent of families in this group had neither checking nor savings accounts. Individuals without bank accounts would be unlikely to pass bank or finance company credit checks but could turn to pawnshops for loans.

The decline in average real wages for production workers and increases in the national poverty rate also may have contributed to the growth in pawnbroking. Low-income consumers often do not qualify for many sources of mainstream credit.

Source: Caskey, J.P. and Zikmund, B.J., 1990, Pawnshops: The consumer's lender of last resort, *Economic Review* March/April, pp. 5-18.

Weighted average poverty thresholds¹ for nonfarm families of specified size, 1965-90

Calendar year	Unrelated individuals			Families of 2 persons or more						Annual average CPI, all items (1982-84 = 100)	
				2 persons							
				Householder under age 65	Householder age 65 or older						
	All ages	Under age 65	Age 65 or older	All ages	Householder under age 65	Householder age 65 or older	3 persons	4 persons	5 persons	6 persons	
1965	\$1,582	\$1,626	\$1,512	\$2,048	\$2,114	\$1,906	\$2,514	\$3,223	\$3,797	\$4,264	31.5
1966	1,635	1,685	1,565	2,115	2,185	1,970	2,600	3,335	3,930	4,410	32.5
1967	1,675	1,722	1,600	2,168	2,238	2,017	2,661	3,410	4,019	4,516	33.4
1968	1,748	1,797	1,667	2,262	2,333	2,102	2,774	3,553	4,188	4,706	34.8
1969	1,840	1,893	1,757	2,383	2,458	2,215	2,924	3,743	4,415	4,958	36.7
1970	1,954	2,010	1,861	2,525	2,604	2,348	3,099	3,968	4,680	5,260	38.8
1971	2,040	2,098	1,940	2,633	2,716	2,448	3,229	4,137	4,880	5,489	40.5
1972	2,109	2,168	2,005	2,724	2,808	2,530	3,339	4,275	5,044	5,673	41.8
1973	2,247	2,307	2,130	2,895	2,984	2,688	3,548	4,540	5,358	6,028	44.4
1974	2,495	2,562	2,364	3,211	3,312	2,982	3,936	5,038	5,950	6,699	49.3
1975	2,724	2,797	2,581	3,506	3,617	3,257	4,293	5,500	6,499	7,316	53.8
1976	2,884	2,959	2,730	3,711	3,826	3,445	4,540	5,815	6,876	7,760	56.9
1977	3,075	3,152	2,906	3,951	4,072	3,666	4,833	6,191	7,320	8,261	60.6
1978	3,311	3,392	3,127	4,249	4,383	3,944	5,201	6,662	7,880	8,891	65.2
1979	3,689	3,778	3,479	4,725	4,878	4,390	5,784	7,412	8,775	9,914	72.6
1980	4,190	4,290	3,949	5,363	5,537	4,983	6,565	8,414	9,966	11,269	82.4
1981	4,620	4,729	4,359	5,917	6,111	5,498	7,250	9,287	11,007	12,449	90.9
1982	4,901	5,019	4,626	6,281	6,487	5,836	7,693	9,862	11,684	13,207	96.5
1983	5,061	5,180	4,775	6,483	6,697	6,023	7,938	10,178	12,049	13,630	99.6
1984	5,278	5,400	4,979	6,762	6,983	6,282	8,277	10,609	12,566	14,207	103.9
1985	5,469	5,593	5,156	6,998	7,231	6,503	8,573	10,989	13,007	14,696	107.6
1986	5,572	5,701	5,255	7,138	7,372	6,630	8,737	11,203	13,259	14,986	109.6
1987	5,778	5,909	5,447	7,397	7,641	6,872	9,056	11,611	13,737	15,509	113.6
1988	6,024	6,155	5,674	7,704	7,958	7,158	9,435	12,092	14,305	16,149	118.3
1989	6,311	6,451	5,947	8,076	8,343	7,501	9,885	12,675	14,990	16,921	124.0
1990 ²	6,652	6,800	6,268	8,512	8,794	7,906	10,419	13,360	15,800	17,835	130.7

¹The **poverty thresholds** are used by the Bureau of the Census to prepare its statistical estimates of the number of persons and families in poverty. The **poverty guidelines** are a simplified version of these poverty thresholds and are issued by the Department of Health and Human Services for administrative purposes. The poverty guidelines are used to determine whether a person or family is financially eligible for assistance or services under a particular Federal program.

²Preliminary data: 1989 weighted average poverty levels raised by 5.4 percent to correspond with the 1990 increase from the 1989 Consumer Price Index (CPI-U) for all urban consumers.

Recent Legislation Affecting Families

Public Law 102-18 – the Resolution Trust Corporation Funding Act provides \$30 billion in additional funds from the U.S. Treasury for the Resolution Trust Corporation (RTC). These funds will be used to shut down failed savings and loan institutions and to protect depositors. Of the \$80 billion that has been made available to the RTC to spend on thrift losses, almost \$50 billion will have to come from taxpayers; \$30 billion has been paid by the thrift industry.

Other provisions would:

- Require the RTC to submit detailed quarterly financing plans for the bailout.
- Require annual General Accounting Office audits of the RTC.
- Direct the RTC to address complaints about its efficiency and performance.
- Expand the scope of provisions on the original salvage bill involving sales of low-income housing to individuals and to public and nonprofit housing agencies.
- Remove a requirement that the RTC get a minimum sales price for a property, freeing the RTC to sell for nominal amounts.
- Require the RTC to report twice a year on its efforts to contract with companies headed by minorities or women.

Enacted March 23, 1991.

Public Law 102-25 – the Persian Gulf Conflict Supplemental Authorization Act authorizes the Department of Defense to use funds in the Defense Cooperative Account, composed of foreign contributions for the war effort, and \$15 billion from the U.S. Treasury to pay for the war.

Among the Gulf troops benefits are the following provisions:

- Raise combat, or imminent danger, pay from \$110 per month to \$150 per month.
- Increase family separation pay from \$60 per month to \$75 per month.
- Double to \$6,000 the death gratuity paid to survivors of those killed during the war or within 180 days after it ends.
- Authorize \$20 million for the Secretary of Defense to provide child care services and \$30 million for school-base and other support services for families of Desert Storm troops.

Among the veterans benefits are the following provisions:

- Reduce from 180 days to 90 days the minimum active-duty service required for Persian Gulf veterans to qualify for certain dental benefits.
- Extend to Persian Gulf veterans eligibility for readjustment counseling, certain drug benefits for homebound veterans, and treatment for psychosis.
- Increase Montgomery GI Bill education benefits.
- Require that employers make certain accommodations for disabled veterans returning to their previous jobs and make every effort to retrain returning workers.
- Extend eligibility for VA home-loan benefits to Persian Gulf veterans with service of 90 days or more.

Enacted April 6, 1991.

Public Law 102-27 – the “Dire Emergency” Supplemental Authorization Act provides \$5.4 billion in new budget authority in fiscal 1991 for dozens of spending programs. The measure pays for

indirect costs of the Persian Gulf War and other matters that Congress felt could not wait for the 1992 appropriations cycle.

Provisions relevant to families:

- \$25 million to the Department of Health and Human Services for a targeted infant mortality initiative.
- \$150 million to the Department of Labor from the Unemployment Trust Fund for State unemployment insurance administration. Funding would provide for increased staffing to expedite claim processing during the recessionary period.
- \$8 million to USDA’s Food Safety and Inspection Service to carry on inspection services authorized by the Federal Meat Inspection Act and the Poultry Products Inspection Act.
- Up to \$35 million to the Farmers Home Administration for a rural housing deferred mortgage demonstration program, from loan funds previously made available under Title V of the Housing Act of 1949.
- An additional \$200 million for benefits to individuals under the Food Stamp Act. An additional \$1.3 billion would be available if a specific dollar amount were requested by the White House.
- \$713 million to the Department of Veterans Affairs for Veterans compensation, benefits, and burial benefits.
- An additional \$156 million to the Department of Housing and Urban Development (HUD) to renew expiring rent subsidy contracts.
- \$75 million to HUD to operate low-income housing projects.

Enacted April 10, 1991.

Current Regional Research Project

W-175. Consumer Health Influenced by Clothing and Household Fabrics

Administrative advisor:

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Fort Collins, CO 80523

Cooperating States: University of Arizona, Colorado State University, University of Hawaii, University of Nevada, Oregon State University, Washington State University

Project dates: October 1985 to September 1991

Objectives: Assess physiological skin changes occurring when fabrics varying in fiber composition, construction, dye, and finish or containing possible laundry product residues are placed next to the skin. Analyze dermatological health problems attributed by consumers to contact with clothing and household textiles. Characterize fabrics that will assist in the improvement of medical conditions, for example, foot disease and diaper rash.

Approach: Skin responses of human subjects, wearing cloth patches as well as full garments and exercising under controlled environmental conditions, were measured. Fabrics included cotton, stiff polyester, soft polyester, and triacetate. Studied were water content in the stratum corneum, water evaporation from the skin surface, capillary blood flow, and skin temperature.

Also, a mail survey assessed consumers' perceived dermatological problems due to fabrics and laundry products as well as any relationships to demographics and climate characteristics.

A follow-up telephone survey of persons indicating dermatological problems determined the practices

used by respondents to deal with the perceived problems.

Progress: Methodologies were developed to study, test, and measure physiological skin changes that occurred when fabrics of varying fiber contents, construction, and chemical finishes were worn under laboratory conditions. Data collected in the laboratory and from 1,785 mail and 324 telephone questionnaires were analyzed. Results were published in journals, proceedings, and corporate research reports, and presented at professional meetings.

Findings:

- The greater the ability of the fabric to absorb water, the lower the hydration state of the stratum corneum until the fabric becomes saturated—then water is absorbed, increasing stratum corneum hydration.
- Respondents perceived that fabrics in clothing or household textiles caused irritation or allergic reactions (29 percent).
- Laundry products caused skin irritation (26 percent) or allergic skin reactions (21 percent).
- Labels were perceived by 44 percent of the respondents to cause skin irritation.
- Of the 185 individuals who reported skin problems related to textiles, 90 percent believed their problems were caused by the textile fibers (wool named most often) and 21 percent, by textile finishes (flame retardant and durable press). Most common problem was skin irritation (82 percent).
- Of the 239 individuals who reported skin problems related to laundry products, 81 percent believed their problems were caused by detergents.

- Among Colorado parents, 25 percent observed skin problems in infants. Parents who used disposable diapers changed their babies less frequently than parents who used cloth diapers. Super-absorbent disposable diapers kept the skin driest and retained the most (synthetic) urine. Conventional disposable diapers held more urine than cloth diapers but were not better in keeping the skin dry. Cloth diapers with a nonwoven middle layer kept the skin dryer than diapers with multiple layers of the same fabric.

Selected publications:

Four manuscripts from this project were published in *Textile Research Journal*, 1990, Volume 60, under the major title, "In vivo cutaneous and perceived comfort response to fabric." These were:

Hatch, K.L., et al. Part I: Thermo-physiological determinations of three experimental knit fabrics, pp. 405-412.

Barker, R., et al. Part II: Mechanical and surface related comfort property determinations for three experimental knit fabrics, pp. 490-494.

Hatch, K.L., et al. Part III: Blood flow and water content under garments worn by exercising subjects in a hot, humid environment, pp. 510-519.

Markee, N.L., et al. Part IV: Perceived sensations to three experimental garments worn by subjects exercising in a hot, humid environment, pp. 561-568.

Other publications include:

Davis, L.L., et al. 1990. Dermatological health problems attributed by consumers to contact with textiles. *Home Economics Research Journal* 18(4):311-322.

Wilson, P.A. and Dallas, M.J. 1990. Diaper performance: Maintenance of healthy skin. *Pediatric Dermatology* 7(3):179-184.

Data Sources

Current Population Survey (CPS)

Sponsoring agency: U.S. Department of Commerce

Population covered: U.S. households and individuals

Sample size: Variable; about 57,000 households

Geographic distribution: Nationwide

Years data collected: 1941 to the present

Method of data collection: Personal interview

Future surveys planned: Monthly

Major variables: The primary purpose of the CPS is to produce monthly employment and unemployment figures. Additional

monthly supplements collect data about the social and demographic characteristics of the labor force.

These data files include job tenure and mobility, multiple job holding, displaced workers, immigration, immunizations, marital history and fertility, school enrollment, adult education, smoking habits, farm wage workers, voting behavior, and child support and alimony. In March, there is a demographic file that details work history, migration, and sources of cash and noncash income.

Publications: Findings from the CPS are published in "Current Population Reports." Among the reports are:

- P-20 (population characteristics)
- P-23 (special studies)
- P-25 (population estimates and projections)
- P-26 (local population estimates)
- P-28 (special censuses)
- P-60 (consumer income)
- P-70 (household economic status)

Source for further information and data: Data tapes available from:

Data User Services Division
Customer Services Branch
Bureau of the Census
Washington, DC 20233

Call (301) 763-4100
Fax (301) 763-4794

Data files for 1980 through 1985, inclusively, are sold by the National Archives and Records Administration.

For additional information about the CPS:

Call (301) 763-2773

For a listing of individual reports, contact the Census Bureau, Customer Services.

Child Support and Alimony Payments – the April Supplement to the Current Population Survey

Sponsoring agency: U.S. Department of Commerce

Population covered: Women, 18 years of age and older and mothers between ages 14 and 17 with own or adopted children

Sample size: Variable; about 40,000 women

Geographic distribution: Nationwide

Years data collected: 1979, 1982, 1984, 1986, 1988, 1990. The 1988 and 1990 data were processed by a new system; therefore, caution should be exercised in making comparisons with previous years.

Method of data collection:

Personal interview

Future surveys planned:

About every 2 years

Major variables: Receipt of support payments by women after a divorce or separation and receipt of child support payments for children of never-married women. Amount of payments in cash and benefits, for example, health insurance.

Source for further information and data: Tape files available from:

Data User Services Division
Customer Services Branch
Bureau of the Census
Washington, DC 20233

General information regarding the survey is available from:

Housing and Household
Economic Statistics Division
Bureau of the Census
Washington, DC 20233

Call (301) 763-8576

Cost of Food at Home

Cost of food at home estimated for food plans at four cost levels, June 1991, U.S. average¹

Sex-age group	Cost for 1 week				Cost for 1 month			
	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan	Thrifty plan	Low-cost plan	Moderate-cost plan	Liberal plan
FAMILIES								
Family of 2: ²								
20 - 50 years	\$49.80	\$62.90	\$77.70	\$96.60	\$216.00	\$272.80	\$336.30	\$418.30
51 years and over	47.30	60.70	74.80	89.20	205.20	263.10	324.00	386.80
Family of 4:								
Couple, 20 - 50 years and children—								
1 - 2 and 3 - 5 years	72.50	90.40	110.70	135.90	314.20	392.20	479.30	588.90
6 - 8 and 9 - 11 years	83.10	106.30	132.90	160.10	360.10	460.60	575.60	693.70
INDIVIDUALS³								
Child:								
1 - 2 years	13.10	15.90	18.60	22.50	56.70	69.10	80.60	97.50
3 - 5 years	14.10	17.30	21.50	25.60	61.10	75.10	93.00	111.10
6 - 8 years	17.30	23.00	28.70	33.50	74.80	99.50	124.50	145.10
9 - 11 years	20.50	26.10	33.60	38.80	88.90	113.10	145.40	168.30
Male:								
12 - 14 years	21.30	29.60	36.80	43.20	92.30	128.10	159.30	187.30
15 - 19 years	22.10	30.50	37.90	44.00	95.60	132.30	164.40	190.70
20 - 50 years	23.70	30.40	38.00	46.00	102.80	131.80	164.50	199.20
51 years and over	21.60	29.00	35.70	42.70	93.60	125.70	154.50	185.10
Female:								
12 - 19 years	21.50	25.60	31.00	37.40	93.00	110.80	134.30	162.30
20 - 50 years	21.60	26.80	32.60	41.80	93.60	116.20	141.20	181.10
51 years and over	21.40	26.20	32.30	38.40	92.90	113.50	140.00	166.50

¹Assumes that food for all meals and snacks is purchased at the store and prepared at home. Estimates for the thrifty food plan were computed from quantities of foods published in *Family Economics Review* 1984(1). Estimates for the other plans were computed from quantities of foods published in *Family Economics Review* 1983(2). The costs of the food plans are estimated by updating prices paid by households surveyed in 1977-78 in USDA's Nationwide Food Consumption Survey. USDA updates these survey prices using information from the Bureau of Labor Statistics, *CPI Detailed Report*, table 4, to estimate the costs for the food plans.

²Ten percent added for family size adjustment. See footnote 3.

³The costs given are for individuals in 4-person families. For individuals in other size families, the following adjustments are suggested: 1-person—add 20 percent; 2-person—add 10 percent; 3-person—add 5 percent; 5- or 6-person—subtract 5 percent; 7- or more-person—subtract 10 percent.

Consumer Prices

Consumer Price Index for all urban consumers [1982-84 = 100]

Group	Unadjusted indexes			
	June 1991	May 1991	April 1991	June 1990
All items	136.0	135.6	135.2	129.9
Food	137.2	136.8	136.7	132.0
Food at home	137.4	136.9	137.0	131.7
Food away from home	137.9	137.5	137.1	133.4
Housing	133.4	132.8	132.5	128.3
Shelter	145.8	145.2	145.2	139.5
Renters' costs ¹	155.1	154.2	155.1	145.3
Homeowners' costs ¹	149.7	149.2	148.8	144.4
Household insurance ¹	138.5	137.9	137.8	135.2
Maintenance and repairs	126.2	126.9	126.1	121.8
Maintenance and repair services	129.9	131.4	130.6	125.4
Maintenance and repair commodities	121.3	120.9	119.9	117.0
Fuel and other utilities	115.8	114.2	113.1	112.2
Fuel oil and other household fuel commodities	89.3	90.9	94.4	84.9
Gas (piped) and electricity	114.4	111.5	109.4	112.4
Household furnishings and operation	115.9	116.3	115.9	113.1
Housefurnishings	107.5	108.1	107.4	106.3
Housekeeping supplies	129.0	129.0	128.9	125.8
Housekeeping services	127.2	127.1	127.3	119.8
Apparel and upkeep	126.9	129.4	130.1	123.3
Apparel commodities	124.4	127.3	128.0	121.1
Men's and boys' apparel	124.0	126.2	125.3	119.9
Women's and girls' apparel	124.7	128.1	129.9	120.9
Infants' and toddlers' apparel	129.8	129.5	130.6	127.8
Footwear	120.2	121.7	121.9	117.3
Apparel services	143.0	142.2	141.7	136.4
Transportation	123.7	123.3	122.2	118.2
Private transportation	121.9	121.5	120.2	116.4
New vehicles	125.8	125.9	125.9	120.6
Used cars	118.8	117.0	115.0	117.6
Motor fuel	100.5	100.2	96.1	94.6
Automobile maintenance and repair	135.6	134.7	134.4	129.6
Other private transportation	148.0	147.7	147.5	141.0
Other private transportation commodities	103.4	103.6	103.3	101.8
Other private transportation services	158.0	157.5	157.3	149.7
Public transportation	146.6	146.0	147.1	141.5
Medical care	176.2	175.2	174.4	161.9
Medical care commodities	176.5	175.4	174.3	163.3
Medical care services	176.1	175.1	174.5	161.5
Professional medical services	165.3	164.4	163.7	155.8
Entertainment	138.1	137.8	137.7	131.9
Entertainment commodities	128.3	128.1	128.5	123.5
Entertainment services	150.3	150.0	149.3	142.6
Other goods and services	170.0	169.1	168.8	157.8
Personal care	134.7	134.9	134.7	131.0
Toilet goods and personal care appliances	132.2	133.0	133.1	129.2
Personal care services	137.3	136.7	136.1	132.8
Personal and educational expenses	180.6	180.2	179.9	168.0
School books and supplies	179.1	177.5	177.5	169.8
Personal and educational services	181.0	180.6	180.3	168.1

¹Indexes on a December 1982 = 100 base.

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Highlights

**Economic Well-Being of Older Women by
Living Arrangement**

Families With a Baby: Income and Expenditures

Food Trends